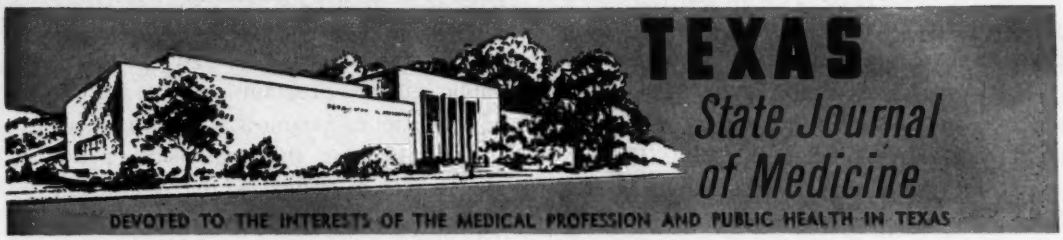

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Scientific Side Stressed

One of the aims of the Texas Medical Association is emphasizing scientific programs and projects—programs which make it possible for Association members to keep up to date with current developments in medicine, programs which help each doctor give the best medical care possible. In line with this philosophy, a major portion of the Association's budget is allocated and spent on these projects. A brief glance at the Association's financial affairs shows how these allocations are made and spent.

The revenue of the Association, which is approximately $465,000, is acquired primarily from membership dues, the sale of advertising in the *Texas State Journal of Medicine,* and the leasing of booths for technical exhibits at the annual session. Expenditures of approximately $330,000 are provided for in the 1958 operating budget. In addition, allocations are made to the Building Fund, the Medical Defense Fund, and the Woman's Auxiliary. Less than 2 per cent of the operating budget generally is spent for public education on legislative issues.

The $50 membership dues, which is the largest source of revenue, will bring the Association more than $350,000 during 1958. Allocations from the dues are made to the different funds of the Association and the Women's Auxiliary.

Receiving the largest amount ($30) from each set of dues is the General Operating Fund, which in turn is allocated to the Memorial Library, the annual session, projects of councils and committees, and other major programs.

The Library, which receives approximately $33,000 a year, provides a package service and makes tapes and films available to Texas doctors. During the past year, it handled

2,400 reference requests, which is 20 per cent greater than the number processed by the library of the American Medical Association.

Total cost for the 1958 annual session was approximately $38,300, net cost to the Association being approximately $13,000. The expenses for the session were defrayed largely from income grossed from technical exhibits ($16,800), ticket sales ($5,800), and contributions from related scientific organizations ($2,700). The only major medical meeting in the state which does not charge a registration fee, the annual session presents noted guest speakers, refresher courses, a film program, scientific and technical exhibits, and panels and lectures—all available to the doctor on the presentation of his membership card.

Other major expenditures coming out of the General Operating Fund include $68,000 for salaries (excluding *Journal* and Library salaries); $22,000 for office expenses, postage, and telephone; $13,000 for taxes; and $12,000 for operation and maintenance of the building.

Out of the Building Fund, which gets $15 out of the dues, come the payments for the headquarters building. The building was completed in 1952 at the cost of $732,000; the remaining balance to be paid was $144,000 as of August, 1958.

The largest single item on the budget is the *Journal,* which is allocated $3 from each set of dues paid, plus its advertising revenue. The *Journal* received a net advertising revenue of approximately $77,000 in 1957, an increase of 96 per cent over the amount received in 1953. Approximately $90,000 will be spent during 1958 for the publication of the *Journal.* Despite the spiral of increasing costs, the *Journal* subscription rate for members is the same today as it was in 1927.

Of the remaining $2 of dues, the Medical Defense Fund receives $1. During the past year, two statewide surveys on such questions as the percentage of doctors carrying malpractice insurance and actual malpractice suits were conducted as a part of the medical defense program. The other $1 goes to the Woman's Auxiliary, which uses its funds, among other things, for the publication of its *News Letter,* for its public relations programs, and for recruitment of personnel to paramedical careers.

In undergoing this remarkable period of growth and development, the Association has initiated many new programs and expanded others, with the result that the services offered today to its members are much greater than ever before. The balance of revenue over expenditures for 1957 was approximately $16,000 and had it not been for extremely favorable advertising revenue from the *Journal,* the ledger for 1957 would have been written in red.

This year, the excess of revenue over expenditures in the operating funds is modest but adequate and does permit the Board of Trustees some latitude for making adjustments and for underwriting Association projects as the occasion demands. The 1958 budget provides a cushion of only 4 per cent to meet these adjustments, emergencies, and additional requests. In substance, Association activities have attained the maximum growth under present operating funds.

—TROY A. SHAFER, M.D., Harlingen.

Tuberculosis and the Physician

A doctor discovers a case of tuberculosis, the disease is in its early stages, therapy is provided, the patient has a good chance for recovery, no report of the case is made—is the job finished? It would be if the patient had been isolated from all other individuals throughout his life. It would be if tuberculosis were not an infectious disease, a disease for which death rates have fallen sharply since the turn of the century, but for which in Texas alone, it was reported in 1957, an estimated 22,000 persons had active cases, one-third of whom were unknown to health authorities.

It has long been recognized that the treatment and prevention of tuberculosis is not the job of any one person or group of persons. It

is a problem that can be coped with only through the coordinated effort of private and public health agencies and groups, physicians being a key group.

Centralization of activities has been brought about by the Texas Coordinating Council on Tuberculosis, organized in 1956 to encourage the team approach to tuberculosis prevention and control through the organization of similar councils at the local level. Members of the council include the Texas State Department of Health, Board of Texas State Hospitals and Special Schools, Texas Education Agency, Lone Star State Medical Association, State Department of Public Welfare, Texas Tuberculosis Association, and the Texas Medical Association. The council also has lent its support to the Texas Tuberculosis Association and the Texas Medical Association in their work with the recodification of Texas tuberculosis laws, which have contained many conflicting, outdated, and confusing provisions. The recodification is presently in its third draft and will be read and reworked with every interested agency before it is finally presented to the Legislature for action.

The work of these agencies, however, depends on the work of the individual physician. The role played by the doctor is an all important one, both in the cure and in the prevention of the disease. The Committee on Tuberculosis of the Texas Medical Association lists the incomplete reporting by physicians of tuberculosis cases to the proper health officials as one of the biggest gaps in the improvement of a statewide tuberculosis control program. An indication of the extent of the problem in this area is shown by reports from one county showing 2 cases of tuberculosis during the year, with reports from state tuberculosis hospitals showing 17 cases admitted from that one county during the same year.

By reporting each case of tuberculosis he encounters, the physician helps the State Department of Health get a more accurate picture of the situation. And having more reliable facts on hand, the health department can concentrate its efforts on those areas needing the most attention, the job of obtaining appropriations from the Legislature for statewide programs becomes easier, and over-all planning becomes more effective. Each case reported will be investigated to see where the infection was acquired and where it has spread.

In addition to the help a physician can give health authorities at the state level, there is also the assistance he can give county officials in setting up a tuberculosis register. Through the establishment of such a register, continuing information about tuberculosis is made available at the local level—the job of prevention and control is lessened.

Congressional Climate Encouraging

Guarded optimism seemed an appropriate attitude for physicians in relation to national legislation as Congress neared adjournment. Action on two measures of special interest to the medical profession, the Forand bill to provide hospitalization for aged recipients of social security benefits and the Jenkins-Keogh bill to permit tax deferments for self-employed persons paying into a retirement fund, suggested a reasonably favorable climate.

Failure of the Ways and Means Committee of the House to report out the Forand bill as a part of the social security amendments was considered a victory for the medical profession. However, it seemed certain from statements by George Meany, president of AFL-CIO, that the Forand idea will be reintroduced at the next session of Congress. Meanwhile, the Ways and Means Committee requested the Secretary of Health, Education, and Welfare to study the various possibilities for financing medical care of the aged, emphasizing the possibility of increasing social security taxes to finance purchase (through private or nonprofit organizations) of health insurance which would go into effect upon retirement. The secretary was in-

structed to have the study completed by February 1, 1959.

The Texas Medical Association has gone on record officially in opposition to the Forand proposal and sent a statement enumerating its reasons to Representative Frank Ikard of Wichita Falls, member of the House Ways and Means Committee, who introduced it into the record of the committee's hearings (see June *Journal,* page 333). Continued diligence in monitoring the progress of the Forand idea and further action at an appropriate time will be necessary, notwithstanding the respite offered by failure of the proposal to get on the floor of the House this summer.

Although a Jenkins-Keogh measure (H. R. 10) had passed the House of Representatives, action was not anticipated by the Senate before adjournment. The Senate was believed to be much less favorably inclined toward the legislation, and a presidential veto seemed a possibility even if the Senate joined the House in passage of the bill. The Senate, however, was expected to act favorably on a bill to aid small business that also contained authority for tax deductions for retirement programs similar to the Jenkins-Keogh principle. The House bill was more liberal in its provisions, but enactment of either would establish the type of program the medical profession and other self-employed groups have been advocating.

The Jenkins-Keogh bill as passed by the House would apply to 10,000,000 self-employed persons, including doctors. Beginning in 1959, such persons would be permitted in figuring income taxes to deduct from their gross income the amount paid as premiums on a restricted retirement policy or as deposits in a restricted retirement trust fund. Up to 10 per cent of net earnings from self employment could be so deducted, but with a maximum of $2,500 in one taxable year or $50,000 in a lifetime. Higher annual deductions would be allowed for persons between 51 and 70 years of age. Taxes on the income drawn from the retirement savings would be payable when the income is realized (usually at a time when total income would be reduced and tax rates would be less than at the time of original earning). The provisions of the Senate bill were similar except for a maximum of $1,000 per year for deductions.

The benefit to the physician or other self-employed person of such a program is obvious. Aside from the advantages to individuals, the measure would tend to end the discrimination which has existed against self-employed persons; heretofore, tax deferments have been available for certain company sponsored retirement plans to which an employee contributes. Major opposition arose because of the loss of revenue the federal government would suffer. A release from the House Ways and Means Committee estimated that the bill as approved by the committee and subsequently passed by the House would result in a tax loss of about $365,000,000 per year.

The Jenkins-Keogh plan went further in Congress this session than ever before and the Forand idea, after extensive airing in committee hearings, failed to muster strength to get far. These facts are encouraging, but medicine won no decisive triumph and cannot expect to rest on its laurels.

Tax Talk

Taxation is a subject likely to arise whenever Congress is in session. Unfortunately, some of the basic problems may not be considered.

The trend of the United States government has been to increase spending to match increased revenue resulting from greater national economic productivity without stopping to take stock of all of the ramifications. Deliberate choices should be made between tax reduction and certain government expenditure programs, and between methods of obtaining federal revenues which throttle initiative and those that provide incentives for growth. But the choices are not being made. Between 1948 and 1958,

Gettysburg Redress

Apropos the income tax are the following excerpts from the *Congressional Record* which Bob Considine released in his newspaper column a year ago:

"One score and sixteen years ago our fathers brought forth upon this nation a new tax, conceived in desperation and dedicated to the proposition that all men are fair game.

"Now we are engaged in a great mass of calculations testing whether that taxpayer or any taxpayer so confused and so impoverished can long endure . . . .

"It is rather for us to be dedicated to the great task remaining before us—that from these vanished dollars we take increased devotion to the few remaining; that we here highly resolve that next year will not find us in a higher income tax bracket; that this taxpayer, underpaid, shall figure out more deductions, and that taxation of the people, by the Congress, for the government, shall not cause our solvency to perish."

defense expenditures increased from $13,000,000,000 to $43,600,000,000; nondefense spending increased from $18,000,000,000 to nearly $37,000,000,000. This was faster than the increase in prices and the rate of population growth.* In 1956, taxes on federal, state, and local levels in this nation totaled $100,000,000,000, or an average of $2,400 for each of the 42,000,000 families. These were divided into 36 per cent individual income taxes, 21 per cent corporate income taxes, 18 per cent sales and excise taxes, 11 per cent property taxes, 9 per cent social insurance taxes, and 5 per cent other types of taxes.†

Even if expenditures are balanced by receipts, they are too great if the national benefits they provide are not worth their costs. Furthermore, our democratic, free enterprise society is based fundamentally on the free decisions of individuals, including how to spend their incomes. The objective of a tax revision should be to place the minimum penalty on the economic structure and to encourage the incentives which can make it grow.

**Thomson, J. C.: Taxation for Growth, based on Statement of National Policy issued by Research and Policy Committee, Committee for Economic Development, New York, 1957.*

†Story of Taxes, Wilmington, Del., E. I. du Pont de Nemours & Company, 1957.

★ Current Editorial Comment

Public Health Laws in Texas

A review of the history of public health legislation in Texas shows that laws for the protection, improvement, and maintenance of the health of its citizens have been enacted in a rather haphazard fashion. Much of such legislation has been passed to take care of special situations existing at the time; some of the laws are contradictory; many of them lack the specificity and clarity necessary to pin down responsibilities and to define relationships between local and state authorities. New legislation has been enacted without repeal of obsolete and sometimes conflicting old legislation. There is still a legal requirement that every county and every incorporated political subdivision have a health officer, even when the services of a full-time trained public health

Modified from a presentation before the Conference of City and County Health Officers in Houston, April 21, 1958.

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

physician and his staff are available through a state-approved health unit. For example, Dallas County has 28 local health officers. Several pieces of legislation have been enacted with the aim to provide for and to stimulate the development of countywide health departments, but thus far there are few true countywide local health departments in Texas.

Tax monies are fragmented in that appropriations for health services are not concentrated in the official health agencies, resulting in increased expenditures for administration. A glaring example of this is the Texas custom of having school health services operated separately from local general health services.

The official state health agency is unable to allocate funds to local health agencies because of lack of legal authority, even though it—the State Department of Health—is the only agency which can receive and dispense federal monies appropriated for health programs.

There is no legislation in Texas which specifically permits the raising of revenue for local public health purposes; local governing bodies must appropriate funds out of general revenue for health activities.

The authority for a county or a city-county combination unit to adopt rules, regulations, or ordinances for the protection of the public health is lacking.

Whereas counties and cities may establish merit and retirement systems for employees, there is no legal way in which the employees of a combination city-county health unit may be provided this security.

There are 10 basic legislative provisions considered necessary for the establishment, development, and operation of adequate and effective local health services in a state. These are as follows:

1. Authority to the governing bodies of political subdivisions to establish full-time local health services.
2. Definition of the local responsibilities of such local health services.
3. Definition of the responsibilities of such local health services to the state health department.
4. Definition of the assistance to be made available from the state health department.
5. Means by which financial support of local health services may be provided.
6. Authority for the operation of a unified local health services program by any combination of political subdivisions.
7. Provision for the elimination or prevention of overlapping or duplicating health services jurisdictions.
8. Provision for the establishment of standard personnel practices as commonly accepted in the state, for example, qualifications of personnel, merit system, retirement, tenure.
9. Authority to political subdivisions to adopt rules, regulations, or ordinances, not in conflict with state laws or regulations, for the protection of the public health and for the discharge of the responsibilities given.
10. Repeal of all legislation in conflict with the new legislation and also of existing legislation that may not be conflicting but may be duplicating or supplemental, or is not needed to accomplish the objective.

If we assign a value of 10 points to each of these provisions and then attempt to evaluate how public health legislation in Texas meets, or fails to meet, these criteria, even by a rather liberal interpretation, the score comes to 45 out of a possible 100.

—JOHN M. WHITNEY, M.D., Dallas.

Dr. Whitney, 1114 Commerce Street, Dallas 2.

President's Page

PROBLEMS OF THE AGED

DR. SMITH

As our population in Texas today includes an estimated 600,000 persons over 65 years of age out of a total of 9,000,000, health problems concerning this age group demand our urgent attention. Elderly persons of our society are increasing at twice the rate of the general population and are due to constitute a highly significant segment of our population in the years to come. The same trend is true throughout the nation.

The scope of the medical aspects relative to the aging population includes not only the diagnosis and treatment of illnesses, but also the problems of housing, rehabilitation, and employment. Physicians must assume their share of responsibility for the medical, social, and economic conditions of the aged, for if ignored, they will have a terrific impact on later generations.

To help provide better health care for the aged, the recently organized Joint Council to Improve the Health Care of the Aged has established a positive program. The council is composed of representatives from the American Dental Association, American Hospital Association, American Nursing Home Association, and American Medical Association. Its objective is to identify and analyze the health needs of the aging; to appraise available health resources for the aging; and to develop programs to foster the best possible health care for the aging regardless of their economic status.

Among the activities which groups in the council have undertaken are these: (1) An American Medical Association committee is working with the American Nursing Home Association in preparing upgraded standards for nursing homes which will result in improved nursing home care for the aged. (2) Six regional conferences have been held under the auspices of the American Medical Association to help doctors cope with problems of the aged, and a national conference will be held in September. (3) The American Hospital Association, in cooperation with the Public Health Service, is conducting a conference on the care of patients with long-term illnesses. (4) A National Con-

ference on Homemaker Service is being arranged with 26 national voluntary organizations cooperating.

In addition, the council seeks the expansion and improvement of health care facilities by encouraging legislative action to accelerate construction and remodeling of hospital and nursing home facilities for the aging. It emphasizes the need for state and local governments to assume their proper responsibility to indigent patients by providing realistic financial support for medical, dental, hospital, and nursing home care for the aging who are unable to pay.

Contrary to the approach of the council, the Forand bill, which would provide free hospitalization and surgical benefits to those eligible for old age and survivor benefits under social security, proposes a negative solution to the problems of the aged. It would be a political expedient that would create as many problems—of financing, use of hospital facilities, and federal intervention—as it would solve. The Texas Medical Association filed a statement in opposition to the bill with Congressman Frank Ikard of Wichita Falls, requesting that it be made a part of the hearing in late June before the Ways and Means Committee of the United States House of Representatives. The committee has reported on social security amendments without the Forand measure, thus virtually killing it for this session, but similar proposals may be anticipated in the future.

As an alternate for the Forand bill, Dr. Alexander A. Jaworski, chairman of the medical economics committee of the Pawtucket (R. I.) Medical Society, suggests a plan by which Blue Cross-Blue Shield coverage could be paid up by age 65. Two large insurance companies already offer such policies, Dr. Jaworski points out in his article in the July 7 *Medical Economics.*

Many feel that progress is not being made fast enough in solving the problems of the aging population. Government solutions are but a compromise of free enterprise principles. It therefore becomes apparent that we must recognize the difficult challenge in this area and forge ahead toward a solution.

Howard O. Smith M.D.

ORIGINAL ARTICLES

Present Status of Radiotherapy In the Treatment Of Cancer

D. W. SMITHERS, M.D., F.R.C.P., F.F.R.

London, England

RADIOTHERAPY has had a long hard pull to achieve its present status as the single most valuable method of treatment available today for the majority of patients with cancer. It is fortunate that it is not the only method, because surgery does some things much better and because together they achieve so much more than either can do alone. It is employed, however, for a larger proportion of patients with cancer than any one other method, both in radical treatment and in palliation. I am told that this statement does not always apply in the United States, or Texas, to the same extent that it does in England. I should add, perhaps, that there are still some surgeons in England who would dispute it hotly. The evidence for it is nevertheless substantial. The only real reason for stressing its importance is that once doctors realise what a change in emphasis has been taking place they are more ready to think again before prescribing. Patients are then more likely to have the benefit of the best that is available for them rather than the best that one individual in one specialty has been in the habit of offering alone. The days when surgery provided the only hope of cure for cancer patients are gone, and the day of co-operation between surgery and radiotherapy, to the great advantage of these patients, dawned some time ago. There are still too many doctors practising cancer therapy who have yet to modernise their ideas. The day of replacement of both surgery and radiotherapy (the only two locally effective treatment methods as yet available) by efficient ways of dealing with the disseminated disease has not yet arrived. However, we have been allowed a bare, exciting glimpse of what one day might become possible at some sites.

Dr. D. W. Smithers, director of the Radiotherapy Department, Royal Marsden Hospital and Institute of Cancer Research, Royal Cancer Hospital, presented this address to the Dallas County Medical Society and St. Paul's Hospital staff in Dallas, October 8, 1957.

Radiotherapy, only about 60 years old, has become probably the most valuable method of treatment for the majority of patients with cancer. Heretofore of greatest use in accessible tumours, radiation now is available in such forms as to be increasingly valuable at other sites. Radiotherapy can serve best, however, in cooperation with surgery.

GROWTH OF RADIOTHERAPY

Radiotherapy started only about 60 years ago. Like most innovations it suffered from prejudice on the part of those who did not practise it and lack of experience on the part of those who did. There is no longer any excuse for either. Some knowledge of the transfer of energy from place to place by radiation and of the simpler biological effects produced by its absorption in living matter are mandatory for the educated doctor in this nuclear age. Radiotherapy is young and has escaped only recently from the stigma of damage done to normal tissues and the suffering inflicted with the use of inadequate, ill protected sources and high doses. It has only just advanced from the days of uncritical enthusiasm when ionising radiations were employed for a great many conditions for which they were quite unsuited to a better appreciation of its role in medicine.

Between the two world wars radiotherapy grew up from the pioneering clinical and biological enquiry typified by the great French school of Regaud, Coutard, and Lacassagne to develop a dosage system second to none in the field of therapeutics, and an accuracy of application to the patient to the credit of the British school led by Mayneord in physics and Paterson in therapy. It is now in process of combining the best in the careful clinical observation and study of natural history of disease of the old school with the efficiency of application and new interest in radiobiology of the new. Today the radiotherapist of repute is a clinical specialist in malignant disease who has made a careful study of the precise application of ionising radiations to patients

and of their effects on living tissues, just as the good surgeon is first a doctor and second a technical expert in a treatment method. In England we like to criticise our favourite institutions and the Manchester school is not spared; it is true to say, however, that modern radiotherapy owes more to Ralston Paterson than to any other single person for having made it effective for large groups of patients and established its status in the world of medicine. The Christie Hospital and Holt Radium Institute under his guidance sees more than 5,000 new patients with malignant and pre-malignant disease each year; it undoubtedly has cured more patients with this disease within its own walls than any other single organisation in the history of medicine and by its influence has raised the standard all over the world. Like Radiumhemmet, its Swedish counterpart, the creation of such men as Forssell, Heyman, Sievert, and Berven, it proclaims its worth and dares comparison by publishing the results it has obtained with treatment in every new patient who attends with cancer. No surgical department has ever attempted a comparable cancer report on such a scale, so complete or covering such a variety of tumours. The habit of reporting the results in all patients with cancer seen in large centres is spreading now in a gratifying manner as shown by the books published by the Royal Marsden Hospital and the United Birmingham Hospitals, for example. The acceptance of the rise of radiotherapy for cancer perhaps has been due as much to the improved standard of reporting of work done as to any other factor. In this field radiotherapists have been in the forefront of the movement for accurate recording and honest presentation; so much so that recent advances in clinical cancer research owe a great deal to them on this account alone.

At those sites which were accessible to the radium needles and applicators or to the soft x-rays available in the early days, good tumour responses were soon obtained. Much short-term damage was done in the form of gross tissue necrosis and some long-term induction of tumours occurred, especially in the treatment of nonmalignant conditions with repeated small doses; nevertheless, tumour responses and tissue reactions were observed carefully and invaluable experience was gained. The first teleradium units, with which the Westminster Hospital and the names of Rock Carling and Stanford Cade will always be associated, took good quality radiation a short distance below the surface and penetrated bone. Further necrosis followed, especially of the jaw, and set back progress in radiation treatment for a while, but patients with tumours of the head and neck were being cured regularly for the first time without mutilating operations. Short-distance, low-voltage x-rays, introduced from Germany, took over the treatment of skin cancer effectively and with little scarring. Paterson put system and efficiency into radium needling and radium applicators and took over from surgery the treatment of mouth and tongue cancer. Heyman developed the vaginal and uterine radium applicators in the Stockholm technique and took over the treatment of carcinoma of the cervix uteri. Wherever there has been a suitable and adequate radiation method available it has steadily replaced surgery as the initial treatment method of choice in the curable patients with epithelial tumours. Only with the 150 to 250 kilovolt x-ray treatment for tumours deep in the body, much too hopefully called "deep therapy," was there continual disappointment because of the inadequate depth dose, the poor radiation quality, and the heavy irradiation of the normal tissues involved.

World War II brought great changes to radiotherapy. Everyone became radiation minded. Many people began to learn about the biological effects of ionising radiations for the first time. The science of radiobiology blossomed in the United States within a few years, and radioactive isotopes, first used in treatment by Hamilton and Stone, in Berkeley, Calif., brought a whole new body of young, experimentally minded, medical workers into the sphere of radiotherapy. Supervoltage plants and telecurie units provided, for the first time, an adequate depth dose of good quality radiation to take effective radiotherapy more than a few centimetres below the skin surface or beyond a body cavity. General medical opinion no longer regarded radiotherapy as a mysterious and rather bogus remedy, but began to see it as a scientific attempt to apply radiant energy to patients in order to change tissue relationships and influence their responses. It became respectable at the same moment that it became more effective.

Supervoltage apparatus has been in use for any quantity of patients with deep-seated tumours for only a few years. It is greatly to be hoped that some lessons have been learned from the past and that a whole new era of radiation damage will be avoided this time. There are already signs of some success at a depth in the body: total cystectomy is less frequently performed and the results in advanced bladder cancer are improving; the adequate irradiation of the pelvic nodes is providing a better prospect for patients with advanced uterine cancer; and palliation at many deep sites has been made more effective. This is the most difficult step forward which radiotherapy has tried to take, since with deep-seated tumours early diagnosis is uncommon, few of the patients seen are at that time curable by any local treatment method, and there is much natural surgical resistance to a proper trial of supervoltage irradiation in those few early cases which reach hospital and are already known to do well with excision. The con-

tinued use of supervoltage treatment for hopeless cases with poor results delays some of these trials even if it is improving palliation.

The growth of influence of radiotherapy in cancer treatment naturally has been most marked and easiest to assess in the field of accessible tumours. For some years it has been the treatment of choice for cancer of the skin, lip, tongue, and mouth. Radium implant work, for which Dr. Charles Martin in Dallas has been recognised so long as an outstanding exponent, has played the major part in establishing radiotherapy at most of these sites. Radiotherapy more lately has become the major form of curative treatment for a number of tumours a short distance below the surface or within easy reach of a body cavity, such as those of the pharynx, larynx, uterus, and bladder. It shares the task with surgery for varying reasons, and in varying degrees, in the breast, testes, kidney, thyroid, and oesophagus. Its place in the treatment of the lymphadenopathies and leukaemias is shared with chemotherapy, not with surgery, but no really long-term effective treatment has been evolved yet for this disease group. Its place in the treatment of mesenchymal tumours, once thought to be radioresistant, is becoming a little clearer as its new partnership with surgery in this field shows signs of making them both more effective. Neither surgery nor radiotherapy has much to offer the patients with cerebral gliomas. In the lung, despite some reasonable claims, it has yet to have a fair trial, and in the prostate, stomach, and intestine it has shown little promise—in the prostate perhaps because the alternative method of hormone therapy has proved such an interesting experience, and in the stomach and intestine perhaps because no satisfactory method of application has been devised yet. There are in addition many fascinating problems in rarer diseases where radiation plays a part which adds greatly to our interest, even if it has no great impact on the cancer problem as a whole.

The case for radiotherapy as the major form of effective, nonmutilating cancer treatment available today is firmly based on fact. Its achievements both alone and in its growing partnership with surgery must be considered separately for each site and each tumour type. To assess its status in cancer treatment as a whole it is necessary to relate its use and value to the frequency with which each site is involved.

TREATMENT PROBLEM

Surgery and radiotherapy are both essentially local in their action. Contrary to popular belief, so successful are they under the best conditions that the great problem of cancer treatment is no longer predominantly a local one; it is the cure of patients with advanced or disseminated disease. In this direction three things have occurred recently to raise our hopes: control has been achieved in breast and prostatic cancer for a while by hormone alterations; radioactive isotopes have eliminated multiple metastatic tumours in some patients, nearly all with thyroid cancer; and large doses of vitamin B_{12} have dealt with disseminated neuroblastomas in a few cases, mostly infants. No other chemotherapy has yet produced anything so spectacular or, with the possible exception of myeloid leukaemia and a few cases of Hodgkin's disease, even risen above the palliative level previously available.

Surgery can extend its scope to regional spread with good effect for moderate lymphatic infiltration, but is limited by its very purpose, which is to remove the whole of the tissues involved. The more it tries to do, the greater the mutilation inflicted. Radiotherapy can extend its scope greatly only by means of such an alteration in relative radiosensitivity between normal and abnormal cells that low-dose, large-volume irradiation becomes effective in more than the rare cases in which it is now successful, or by means of further selective localisation of its effect in tumour cells through the use of radioactive isotopes. Surgery and radiotherapy together, in a new partnership, supported by vigorous attempts to achieve earlier diagnosis leading to more treatment before dissemination has occurred, have made a much better job than ever before of the localised disease. Essentially, however, they compete for the same groups of early cases; only the fact that radiotherapy is widely used for palliation in inoperable patients as well has obscured this issue. They should not, by aspiring too high and attempting the impossible, add to the discomfort of those they cannot help, nor should they deny a patient his best chance of cure through any lack, on either side, of understanding or willingness to co-operate with the other discipline.

The commonest cancers accounting for more than half the total incidence are those of the skin, intestines, prostate, breast, lung, uterus, stomach, and ovary (table 1). Well over half the patients developing malignant disease require radiotherapy as part of their first planned treatment (table 2). The size of the problem is great enough for us all to play our part, and the need for co-operation between surgery and radiotherapy is becoming more and more obvious (table 3).

We are so preoccupied with death from cancer that we often forget that the skin is still the commonest site of malignant disease in the world today. Here radiotherapy needs no advocate—its results with basal and squamous cell carcinomas are so good that no patients with localised diseases now should go uncured and most should be unscarred. Surgery can do as well in terms of survival and has the advantage of being quicker when the cosmetic result is un-

important, but it is used less and less for the common tumours of the face. When these tumours are neglected until they have penetrated deeply into the underlying tissues, particularly bone, both surgery and radiotherapy are unreliable alone, and repeated operations or treatments with further extension each time, ending with gross deformity, used to occur far too frequently. Today these advanced cases are less often seen, but even they are now regularly curable with combined treatment when the irradiation is followed by surgery. The radiotherapy deals with the soft tissue involvement, limits and defines the surgical removal required, and lowers the risk of further spreading tumour in the bone. It is inexcusable to use surgery as the first method of treatment in such advanced cases today.

After the skin, the next most frequent tumour site common to both sexes is the gastro-intestinal tract. With the exception of part of the oesophagus, surgery is here supreme. With radiotherapy, the accurate localisation of absorbed dose to tumours of the stomach and bowel is so difficult that no satisfactory method has yet been devised. The radical surgical removal of these tumours, including the lymphatic drainage, is now probably almost as efficient as the state of the patient and the disease at the time of operation permits. Gastrectomy, radical colectomy, and abdominoperineal resection are among the most outstanding triumphs of surgery in malignant disease. Radiotherapy at times offers useful palliation to those with gastric tumours found to be inoperable, by providing radon seeds or radioactive gold grains for implantation at laparotomy, and also to some of those with inoperable rectal tumours by the use of supervoltage x-rays. It plays no major part in the curative treatment of most gastrointestinal cancer, although it is still doing a little better than surgery with that difficult problem of the upper two-thirds of the oesophagus.

Challenging the gastro-intestinal tract in frequency of tumour formation is the bronchial tree, and in men it is winning fast. Here the treatment problem is difficult and involved. Few patients are curable by any local method by the time they reach hospital. Surgery looks for the presymptomatic case for a more certain chance of cure and to mass miniature radiography, or the routine film of a health check in those past middle age, for help in obtaining them; its greatest success lies with the early tumour, which may be undiagnosable with any certainty before removal. Radiotherapy can be expected only to palliate in the inoperable group; it has not yet had a proper

TABLE 1.—*Probability at Age 45 of Eventually Developing Cancer at Sites Accounting for More Than Half the Risk.*

Men	%	Women	%
All sites 22%		All sites 24%	
1. Intestines*	3.3	1. Breast	5.3
2. Skin	3.1	2. Intestines*	3.8
3. Prostate	2.9	3. Uterus†	3.5
4. Lung	2.3	4. Skin	2.5
5. Stomach	2.2	5. Stomach	1.4
	13.8		16.5

The risk of developing lung cancer seems to be increasing fairly rapidly in men and of ovarian cancer fairly slowly in women; the risks at the other sites shown seem to be decreasing slightly.

*Intestines include small bowel, colon, and rectum.

†Including cervix and fundus.

(Based on a report of the Division of Medical Services, New York State Department of Health: Goldberg, I. D.; Levin, M. L.; Gerhardt, P. R.; Handy, V. H.; and Cashman, R. E.: Probability of Developing Cancer, J. Nat. Cancer Inst. 17:155-173 (Aug.) 1956.)

TABLE 2.—*Estimate of Incidence of New Cancer Cases Each Year in England and Wales and Proportion Requiring Radiotherapy.*

About 2,100 new cases of cancer each year in a population of 1,000,000; or 105,000 in a population of 50,000,000.

More than 50 per cent require radiotherapy or at least 1,500 per annum per million; or more than 52,500 in a population of 50,000,000.

In 1946 more than 30,000 cancer patients received radiotherapy in England and Wales, estimated at 77 per cent of those needing it. In 1956 it is probable that more than 40,000 cancer patients were so treated.

(Based on National Radium Commission report by Tod, M.: Inquiry into Extent to Which Cancer Patients in Great Britain Receive Radiotherapy, Altrincham, John Sherratt and Son, 1949.)

TABLE 3.—*Main Cancer Producing Sites in Relation to Frequency of Treatment by Radiotherapy Alone or in Combination with Surgery.*

Used in More Than 80% of Those Treated	Used in More Than 50% and Less Than 80% of Those Treated	Used in Less Than 10% of Those Treated
†Skin	†Pharynx	†Stomach
‡Lip	†Sinuses	‡Intestines
†Mouth	‡Lungs	‡Prostate
†Larynx	*Ovaries	*Kidney
*Breast	‡Vulva	†Brain
†Bladder	‡Vagina	‡Liver
†Uterus	‡Oesophagus	‡Pancreas
*Testes	*Thyroid	
‡Penis	*Bone and soft tissue sarcomas	
*Salivary glands		
‡Lymphadenopathies	‡Leukaemias	

Treatment of kidney tumours by radiotherapy as well as surgery increasing.

Treatment of cerebral gliomas unsatisfactory by both methods.

*Treatment often combined with surgery.

†Treatment occasionally combined with surgery.

‡Treatment rarely combined with surgery.

(Based on Royal Marsden Hospital experience and on National Radium Commission Report by Tod, M.: Inquiry into Extent to Which Cancer Patients in Great Britain Receive Radiotherapy, Altrincham, John Sherratt and Son, 1949.)

trial using supervoltage plant for those thought to be operable. Some interesting experiments are being made, however: the trial of preoperative irradiation at the Hammersmith Hospital in London in which 46 per cent of the highly selected patients who had subsequent resection performed were found to have no residual primary tumours; the treatment of a few operable cases at University College Hospital by radiotherapy alone, which has been undergoing test for the past few years; and the implantation of radioactive gold grains at the Brompton Hospital in London, or of radioactive iridium at the Memorial Hospital, New York, in patients found to be inoperable at thoracotomy.

Another important site of rising tumour incidence is the bladder. Here radiotherapy recently has been showing its value. Radioactive solutions have been instilled into the bladder for the treatment of multiple small tumours scattered throughout a diseased mucosa as an alternative to total cystectomy; tantalum wire implants (Ta^{182}) and gold grains (Au^{198}) have been used with great success for localised tumours and supervoltage rotation therapy lately has improved the chances of patients with more advanced disease. Here urologists and radiotherapists have worked together in a most rewarding co-operation to develop a whole new and more effective treatment plan.

The other tumour sites which make up more than half the total cancer incidence are the prostate, breast, and uterus. Radiotherapy has been used little for prostatic cancer since hormone therapy proved its palliative value, though x-rays are often useful for pain relief and implants occasionally are employed to relieve obstruction in advanced cases. In the breast and uterus it plays an important part in a most valuable surgical partnership. These two stories are far too well known to need re-telling in a general survey such as this. They are two of the best documented groups of tumours in the body, and everyone can appreciate the increasingly valuable role which radiotherapy has been playing in both of them in recent years.

A review of the major cancer incidence leaves untouched a number of rarer, but still important, tumours. In a general discussion we cannot do them justice or put in the qualifications which soften bald statements. However, let me affirm briefly my present views about a few of them.

The larynx and pharynx are now a radiotherapeutic field with surgery forming a valuable second line of defence; this view is virtually undisputed in any centre where good radiotherapy for any real quantity of patients with these tumours has been properly observed. The ovary and pancreas are surgical fields with little radiotherapeutic challenge other than some attempts to control spread in the peritoneal cavity with colloidal gold (Au^{198}) in the case of ovarian tumours, and to implant radioactive gold or iridium at times into the pancreas. The kidney is again primarily a surgical field, but with the value of preoperative and postoperative irradiation becoming established at least to the point where every urologist must now consider the question. The blood diseases and lymphadenopathies are a radiotherapy field with good palliation, much disappointment, and only a few recent advances such as the use of radioactive phosphorus (P^{32}) in polycythaemia vera. The thyroid is primarily a surgical problem still, with undoubted value in postoperative irradiation and a new hope for a few late cases with radioactive iodine (I^{131}). The testicle is fairly shared, for here surgery and radiotherapy together have more than doubled the survival rate and bid fair to do better still for those with seminomas. In the bone and soft tissue sarcomas combined treatment is just beginning to show its slight advantage. The cerebral gliomas have proved a stubborn problem; no treatment is of much avail, but supervoltage irradiation perhaps deserves a longer trial.

FUTURE OF RADIOTHERAPY

Radiotherapy progress has depended in the past on adequate sources of radiation being available for each particular job. With radium, superficial x-rays, radioactive isotopes, telecurie units, and supervoltage x-ray plant, it now has a full opportunity to make the best of what is possible. Progress probably will depend more on the clinical material available for treatment than on anything else. Already local treatment methods are often extremely effective. Some tumour types remain resistant, and work in radiobiology on protection of normal tissues and enhancement of tumour effect and in therapy on variation in dose relationships in time and space hold out limited prospects for improvement. A little difference in the relative radiation effect on tumours and normal tissues might make a big difference in response, however. The experiments with treatment under raised oxygen tension therefore have some special interest at this time.

Radioactive isotopes have added great variety to implant methods with advantage. They have opened a new and exciting field by selective localisation; the fact that it is still so small should not lead to premature disappointment. Attempts to increase tumour uptake by hormone-induced alterations in metabolism, such as those being made in Dallas by Dr. J. R. Maxfield, are examples of a progressive attitude to this question of much importance because it represents a step into the sphere of treatment for the disseminated disease. Control of disseminated tumours has occurred already with I^{131} and P^{32}, two simple

compounds; the field is still wide open for further experiment.

Supervoltage x-ray treatment is a great step forward. No one with experience of it has any doubt. Experience with this quality radiation goes back many years with teleradium, and this should not be overlooked by those enthusiasts who, having just acquired their first radioactive cobalt (Co^{60}) apparatus, are preparing to take on anything that comes their way. The beautiful new generators with their hard, sharp, penetrating beams—the Van de Graaffs, linear accelerators, and betatrons—are the aristocrats of the new radiotherapy age from which some further improvement, in the sphere of what is possible, is to be expected but not the achievement of any miracles.

More is to be expected from earlier diagnosis at some sites than from any improvement in treatment technique. More also could follow from a wider application of the best kind of co-operation between surgery and radiotherapy, which is still far too infrequent and casual. Although the status of radiotherapy in the treatment of cancer is second to none, it nevertheless works much better served with a dash of humility and supported by a readiness to co-operate with the much longer experience of surgery.

Dr. Smithers, Radiotherapy Department, Royal Marsden Hospital, Fulham Road, London, S.W. 3, England.

Plasma Storage Eliminates Hepatitis

A recent 4 year study has given additional proof that storage of pooled blood plasma at room temperature eliminates the danger of hepatitis being transmitted by the plasma, as reported in the March 15 *Journal of the American Medical Association*. The study was conducted at the University of Cincinnati College of Medicine and Cincinnati General Hospital.

The survey included 282 patients who were given plasma taken from 4,892 donors. This plasma was pooled and stored at room temperature for 6 months. None of the recipients developed hepatitis.

Pregnancy Complications Said to Cause Reading Disorders

Premature births and complications during pregnancy may be factors in causing reading disorders among children, said Dr. Ali A. Kawi of New York and Dr. Benjamin Pasamanick of Columbus, Ohio, in the March 22 *Journal of the American Medical Association*.

"Children with reading disorders had a significantly larger proportion of premature births and abnormalities of the prenatal and paranatal periods than other control subjects," observed the doctors. A controlled study was made of 205 boys, ranging in age from 10 to 14 years, with known reading disorders.

Naturally Occurring Hormones In the Treatment Of the Climacteric

C. MARSHALL ASHMORE, M.D.; DUDLEY Y. OLDHAM, M.D.; and RONALD F. MORRIS, M.D.

Houston, Texas

SEVERAL FACTORS were persuasive in influencing the present study of the use of naturally occurring hormone combinations in the treatment of the climacteric, or menopause, to use the more familiar term.

In the first place, laboratory evidence indicated the chemical modification of one hormone, or group of hormones, by another, and thus created a desire to discover what effects may be expected clinically. Secondly, Malleson[5], reporting on menopausal disorders, had already proposed that symptoms may be produced by the incidence of some special ratio between certain hormones. In this connection, a specific uterine relaxing hormone, Lutrexin, which was employed in this study, has been shown in well defined laboratory experiments[1] to give a blocking effect against at least two of the pituitary hormones, oxytocin and vasopressin.

Dr. C. Marshall Ashmore is a general practitioner and surgeon. His co-authors, Dr. Oldham and Dr. Norris, specialize in gastroenterology and surgery and in obstetrics and gynecology, respectively.

Trexinest tablets, which contain naturally occurring equine estrogens and a new nonsteroid, uterine relaxing hormone, Lutrexin, were used with 48 patients suffering from the menopausal syndrome. Total relief of symptoms occurred in 42 patients. No side reactions were noted in 47. Other results are described.

The menopause, during which menstrual function ceases, has been defined by Hamblen[3] as lasting from

the first break in ovarian function until endocrine and gynecologic adjustments to ovarian senility are completed. The menopause usually occurs between the forty-fifth and fiftieth year, but great deviations from this have been noted.

Alterations in the endocrine system, presumably in the following order, include the disappearance of ova from the ovary, breakdown of ovulation, and the failure of estrogen secretion. Although there are no remedies for the first two occurrences, estrogen therapy is available for treatment of the third.

Menopausal symptoms constitute one of the commonest problems which physicians encounter. The most prominent symptom is the hot flush which is often followed by a severe sweat. One also sees, according to Cohen[2], severe headaches, chills, palpitation, dizziness, depression, irritability, nervousness, crying spells, arthralgia, and a number of gastrointestinal symptoms.

For the treatment of the menopausal syndrome, Hamblen[3] advocated estrogens as being superior to barbiturates, bromides, benzedrine, and other sedatives and stimulants. Natural hormones, by the oral route, are well tolerated and provide beneficial metabolic action. They promote a positive water and sodium balance and provide stimulation of nitrogen metabolism.

According to Smith[8], estrogenic hormones have a role in the metabolism and distribution of fat, carbohydrates, protein, minerals, and pigment. They act upon the pituitary, the master gland of the body—further evidence of a relationship to all body tissues.

There has been a general theory[4] that pituitary hormones could be responsible for menopausal symptoms because of their stimulation of the failing ovary to further activity. Animal experimentation[1] has shown that Lutrexin exerts a regulatory action with respect to the pituitary hormones, which may explain the excellent clinical results obtained by the addition of Lutrexin to estrogen therapy.

PRESENT STUDY

In our present study, we have employed Trexinest tablets, which combine the effects of the well known, naturally occurring equine estrogens and Lutrexin. Other hormonal combinations are under investigation, and it is hoped that experimental results will become available in the future.

Our paper covers 48 case histories of menopausal disorders. Of these, 37 were surgically created, and 11 represent natural cases.

In table 1, a summary of the cases, unusual conditions are noted; otherwise, it is assumed that each patient presents the typical picture of menopausal distress. It is important to realize that almost all of these cases were refractory, having failed to respond to the usual methods of treatment, including administration of estrogens (natural and synthetic, both oral and injectable), androgens, and combinations thereof. It is remarkable to note that only in case 8 were there adverse effects reported—continued nausea, which ceased upon discontinuance of the drug.

In reviewing the data in the table, it can be seen that 42 of the 48 patients received total relief from symptoms. Moreover, there is only 1 complete failure reported, and this patient could not have ingested the drug because of continuous nausea. Of the 5 receiving only partial relief, 1 suffered from a continuing urinary infection, 1 had mastitis which was not relieved, and 1 was subject to migraine headaches which were not affected. In the remaining 2 cases of partial relief, hot flashes were reduced from 15 or more per day to 3 or 4 per day.

In the majority group who experienced practically total relief, Trexinest prevented the depressed state which prevails in the menopausal patients; eliminated hot flashes, night sweats, and nervousness; and restored a more normal, healthy outlook on life.

It should be emphasized that the cases involved represented a sequence of run-of-the-mill refractory patients who were not selected merely for the purpose of this report.

CASE REPORTS

Five cases typical of the entire series are reviewed briefly. They are numbered to correspond with numbering in table 1.

CASE 2.—A 46 year old woman reported that she had been having hot flashes for 10 years. The hot flashes had not been relieved by various types of estrogens and androgens. She was going through a natural menopause and a physical examination was negative. On January 15, 1956, she was started on 1 tablet of Trexinest three times a day for 1 week. The patient was asymptomatic after 1 week, after which dosage was reduced to 1 tablet daily. Maintenance therapy was continued for 3 months, then discontinued completely. The patient remained symptom free on the maintenance dose and has remained free from symptoms since medication was discontinued. When last seen on April 2, 1957, she presented no symptoms of hot flashes or night sweats. Medication was well tolerated; no withdrawal bleeding was noted.

CASE 16.—A 52 year old woman developed severe hot flashes on September 5, 1956, following total hysterectomy and bilateral salpingo-oophorectomy on August 15, 1956. Treatment consisted of 1 Trexinest tablet daily for a period of 1 month. She was symptom free by he end of the first week and has remained so, even after discontinuance of the drug. When last seen on November 1, 1957, she had no menopausal symptoms.

CASE 22.—A 34 year old patient had bilateral endometriosis which necessitated complete hysterectomy at the

age of 29 (tubes and ovaries were removed). She was started on Trexinest in May, 1955, after taking other mixed hormones which did not get results. For 2 years, this patient has been taking Trexinest, 1 tablet daily. Symptoms are controlled, and she has had no adverse effects.

CASE 34.—A 29 year old woman experienced menopause following total abdominal hysterectomy and bilateral salpingo-oophorectomy on April 2, 1956, because of pelvic inflammatory disease. Symptoms became apparent on May 15, at which time she was treated with Trexinest, 1 tablet three times a day for 1 week, then 1 tablet daily. Symptoms were controlled within 5 days, and medication was discontinued on August 21. The patient last was seen on January 14, 1957, with no menopausal symptoms.

CASE 23.—This patient at 45 years of age was treated for beginning menopause (natural); 1 tablet of Trexinest daily was given. After 10 days, symptoms were relieved. She omitted Trexinest for as long as 3 to 4 months at a time, and when symptoms returned treatment was resumed. There were no adverse effects. This patient has omitted the medication for the past 8 months and is still feeling well, with no symptoms returning.

TABLE 1.—*Use of Trexinest for Menopausal Disorders in 48 Patients.*

Case	Age (yr.)	Cause of Menopause	Other Factors	Dosage of Trexinest: Frequency*	Dosage of Trexinest: Duration (mo.)	Relief of Symptoms: Total	Relief of Symptoms: Partial	Relief of Symptoms: None
1	51	Surgical	Enlarged heart	1-1	25	X		
2	46	Natural	Cystocele and obesity	3-1	3	X		
3	50	Surgical		2-2	14	X		
4	47	Surgical		2-2	15	X		
5	38	Surgical	Urinary infection	1-1	24		X	
6	42	Surgical		1-1	24	X		
7	32	Surgical		2-2	16	X		
8	48	Natural		2-2	7			X
9	36	Surgical		1-1	18	X		
10	49	Natural		1-1	25	X		
11	45	Natural		3 cyclic	2½	X		
12	46	Surgical		1-1	4	X		
13	39	Surgical		1-1	2	X		
14	32	Surgical		2-2	24	X		
15	46	Surgical		2-2	17	X		
16	52	Surgical		1-1	1	X		
17	32	Surgical		1-1	2	X		
18	—	Natural		1-1	29		X	
19	34	Surgical		1-1	17	X		
20	43	Surgical		3-2	27	X		
21	32	Surgical		2-1	28	X		
22	34	Surgical		1-1	24	X		
23	45	Natural		1-1	26	X		
24	45	Natural		1-1	3	X		
25	40	Surgical		1-1	29	X		
26	53	Natural		1-1	29	X		
27	49	Surgical	Mastitis	2-1	17		X	
28	50	Surgical		2-1	17	X		
29	49	Surgical		3-3	7	X		
30	35	Surgical		1-1	29	X		
31	45	Surgical		1-1	3	X		
32	40	Surgical		1-1	11	X		
33	49	Natural		1-1	13	X		
34	29	Surgical		3-1	3	X		
35	48	Natural		1-1	11	X		
36	40	Surgical		1-1	24	X		
37	50	Surgical	Coronary attack	2-1	18	X		
38	48	Surgical		2-2	25	X		
39	40	Surgical		1-1	2	X		
40	36	Surgical	Hyperthyroidism	1-1	2	X		
41	42	Surgical		1-1	2	X		
42	52	Natural	Arthritis	1-1	2	X		
43	38	Surgical		3-1	2	X		
44	38	Surgical	Migraine headache	3-3	1		X	
45	31	Surgical		1-1	12	X		
46	34	Surgical	Thrombophlebitis	3-1	14	X		
47	41	Surgical		3-1	24	X		
48	41	Surgical		2-2	16		X	

*3-1 refers to 3 tablets per day for 1 week, followed by 1 tablet per day; if no change in dosage occurs after the initial period, the figures 3-3 will appear—likewise 2-2 or 1-1. "Cyclic" means that the tablets were discontinued for 1 week after 3 weeks of dosage.

DISCUSSION

No side effects, such as nausea (with one exception), withdrawal bleeding, or increase in cyclic breast soreness were noted in the entire group of 48. One patient complained of an allergic reaction (nose stopping), which ultimately was diagnosed as hay fever. This patient resumed Trexinest therapy and is at present obtaining excellent results. One striking general fact was noted: when the medication was discontinued, symptoms sometimes recurred; but with resumption of use, rapid control of symptoms in all patients was obtained.

In the main, responses were noted within 3 days after dosage was instituted. Time for complete control in the 42 successful cases varied from 3 to 14 days. Control of symptoms, without exception, ranged from good to excellent (excellent by patient classification in all cases).

Our experience parallels that of Roos[7] and also Rezek,[6] who each have treated 50 to 60 cases of the menopausal syndrome with Trexinest. Their results indicated an extremely favorable response in that total relief of symptoms occurred in a large majority of patients.

The foregoing data leads one to speculate on the striking results obtained by the addition of Lutrexin to the usual estrogenic therapy. Perhaps, a uterine relaxing hormone is an essential part of the cycle of normal menstruation and supplies a real need from puberty through menopause, and possibly beyond. It may be that, as Malleson[5] said, hormonal imbalance is responsible for much indisposition and illness among women of all ages. Of certain significance is the blocking of the action of pituitary hormones by Lutrexin. Work is continuing toward a hoped for clarification of hormonal activity in this field.

SUMMARY

Forty-eight patients suffering from the menopausal syndrome (the majority of whom had received previous therapy) were treated with Trexinest tablets, containing naturally occurring equine estrogens and a new nonsteroid, uterine relaxing hormone, Lutrexin.

Forty-two patients received total relief from symptoms.

No side reactions of any description occurred in 47 cases.

A suggestion is made that Lutrexin may be an essential part of the normal menstrual cycle.

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Dr. Ashmore and Dr. Oldham, 5503 Crawford, Houston, and Dr. Norris, 1610 Memorial Professional Bldg., Houston.

Benzathine Penicillin in the Treatment of Syphilis

C. HUNTER MONTGOMERY, M.D.; JOHN M. KNOX, M.D.; and FRED K. LAURENTZ, M.D.

Houston, Texas

WITH the discovery of the unusually potent antisyphilitic effects of penicillin by Mahoney, Arnold, and Harris in 1943, the treatment of syphilis underwent a dramatic change. Other investigators were quick to reaffirm these observations, but each utilized and advocated his own treatment schedule. The advent of the longer acting penicillin preparations complicated the picture even further. While numerous evaluations have been carried out on these

Dr. C. Hunter Montgomery, director of the Houston Venereal Disease Clinic, presented this paper at the Conference of City and County Health Officers in Houston, April 21, 1958.

Use of benzathine penicillin in treatment of syphilis should reduce the cost of treatment, the likelihood of penicillin reactions, and the possibility of partial treatment. Results in 42 positive cases of early syphilis treated in a single session with 2,400,000 units of benzathine penicillin and in 8 cases of neurosyphilis treated in two sessions with 4,800,000 units are described.

various preparations, physicians, bewildered by the confusion, tended to use a program of maximum dosage, fearing that less treatment might result in the relapses so frequently seen with the previous arsenical and bismuth therapy.

The most recent advance in the penicillin treatment of syphilis occurred with the development of benzathine penicillin. Outstanding results have been reported utilizing a single injection of 2,500,000 units of benzathine penicillin in the treatment of early syphilis.[5] Public health physicians have been quick to recognize its advantages, and today many venereal disease clinics throughout the country are using this treatment for the control of syphilis. Most physicians in private practice have not been made aware of this development. We wish, therefore, to review our experience with this preparation in the Venereal Disease Clinic, Houston.

METHOD OF STUDY

The use of benzathine penicillin for the treatment of early and latent syphilis was begun in our clinic in April, 1955, and for the treatment of neurosyphilis in September, 1956. Darkfield positive cases of early syphilis, with a minimum of 2 months' follow-up, were studied. The maximum follow-up was 24 months and the median follow-up was 6 months. All cases of active neurosyphilis (more than 10 cells per cubic millimeter) in which we were able to obtain a repeat lumbar puncture at 6 months were included for study. Treatment consisted of 2,400,000 units of benzathine penicillin in early and latent syphilis, 1,200,000 units (300,000 units per cubic centimeter) being injected intramuscularly into each buttock at the time of diagnosis. If the patient was diagnosed as having latent syphilis, a lumbar puncture was done, and if serologic tests on the cerebrospinal fluid later were reported as reactive, the diagnosis was changed to asymptomatic neurosyphilis. The patient then was returned to the clinic in 2 weeks, and the initial dosage of 2,400,000 units of benzathine penicillin was repeated.

During this period we have treated a total of 42 patients with darkfield positive syphilis and 8 patients with active neurosyphilis. Of the 42 cases of darkfield positive syphilis, 15 were seronegative primary syphilis, 15 were seropositive primary syphilis, and 12 were secondary syphilis. In no single group was the median follow-up less than 5 or more than 6 months. Although it is the general policy to wait 2 years before the acceptance of the effectiveness of any new drug for the treatment of syphilis, it is now possible, on the basis of known responses to adequate penicillin therapy, to be comparatively certain of the effectiveness of any new agent within 5 to 6 months.

RESULTS

Of the 42 darkfield positive patients followed, 27 were seropositive at the time of diagnosis and treatment, 21 of whom had more than 4 Kahn units. At the time of their last observation, 13 cases remained seropositive, but only 3 had more than 4 Kahn units (fig. 1). Of the 17 patients that have completed a period of 7 months follow-up, none was found to have more than 4 Kahn units. Of the 11 patients followed for 11 months, all had become seronegative (fig. 2). All 15 cases of seronegative primary syphilis have remained seronegative.

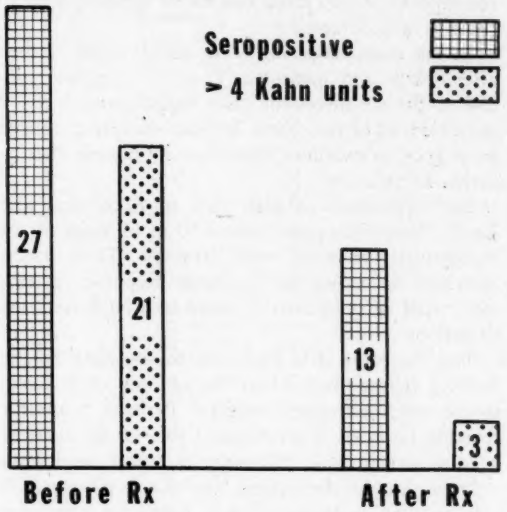

Fig. 1. Comparison of serum serologies in 42 cases of primary and secondary syphilis, before and following treatment with 2,400,000 units of benzathine penicillin.

Of the 3 patients who still had more than 4 Kahn units, the first patient's titer as measured by Venereal Disease Research Laboratories (VDRL) methods

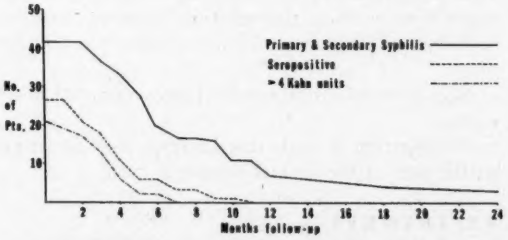

Fig. 2. Graph demonstrating the relationship between patient follow-up and serum serologies in 42 cases of primary and secondary syphilis.

dropped from being positive at a dilution of 1:1,024 to positive at a dilution of 1:8 and the Kahn results from 512 to 32 units within the 4 month period of follow-up. In the second case, the VDRL titer dropped from 1:64 to 1:2 and the Kahn from 128 to 8 units in a period of 3 months. The third patient's VDRL titer dropped from 1:64 to 1:4 and the Kahn from 128 to 8 Kahn units in a period of 2 months. All of these patients had secondary syphilis. At this time there is no evidence to indicate a failure of therapy, but merely inadequate follow-up.

Two patients have been retreated. One was a 17 year old Negro girl who, at the time of her original diagnosis of secondary syphilis, had a titer of 512 Kahn units. Five months following treatment, she was seen for prenatal care and had only 3 Kahn units. Despite this drop in titer, and without any clinical evidence of relapse or reinfection, she was given prophylactic retreatment during pregnancy. The second case was a 21 year old Negro man seen with primary syphilis, a weakly reactive VDRL result, and a nonreactive Kahn result. He failed to reveal his common law wife as a contact; therefore, she was not examined or given prophylactic therapy. One month after treatment, his serum became nonreactive in the VDRL test. Five months from the time of treatment, both he and his wife were diagnosed and treated for secondary syphilis. All of the wife's contacts, except the husband, were negative clinically and serologically for syphilis. We think that this failure represents reinfection and is a failure of epidemiology rather than of therapy.

The results in the 8 cases of neurosyphilis treated with 4,800,000 units of benzathine penicillin are shown in table 1. In all cases the cell count was elevated at the time of diagnosis and fell to less than 5 cells per cubic millimeter on repeat spinal fluid examinations 6 months later. The spinal fluid serologies are reported as reactions in serial dilutions. In most instances where comparable specimens are reported, there was a drop of approximately one tube dilution during this 6 month period.

TABLE 1.—*Comparison of Spinal Fluid Cell Counts of Neurosyphilis Before and 6 Months After Treatment with 4,800,000 Units of Benzathine Penicillin.*

Case	Age (yr.)	Cell Count (per cu. mm.) At Diagnosis	Cell Count (per cu. mm.) 6 Mo. After Treatment	Serology* At Diagnosis	Serology* 6 Mo. After Treatment
1	52	23	2	444 - -	44 - - -
2	35	26	3	22 - - -	NR
3	62	42	0	Ac	4433 -
4	52	12	4	444 - -	44 - - -
5	44	37	1	R-qns	4444 -
6	43	40	0	4444 -	4443 -
7	48	288	2	4444 -	444 - -
8	41	101	0	4444 -	444 - -

NR = nonreactive.

Ac = anticomplementary.

R-qns = reactive; quantity not sufficient for titer.

*Reported as reactions in serial dilutions, the figure on the left of each series representing undiluted spinal fluid and the figure on the right a 1:16 dilution.

DISCUSSION

In 1946, Eagle, Magnuson, and Fleischman[1] studied time-dosage relationships on the curative dose of aqueous penicillin in the treatment of syphilis in rabbits. They found that the greater the number of injections, the less the total dosage of penicillin necessary for cure. By increasing the number of injections from 8 to 50, the total curative dose per kilogram of body weight dropped from 80,000 to 360 units. Their results showed that it was possible to cure syphilis in rabbits by a wide variety of time-dosage schedules; however, the curative dose was lower when injections were given at 4 to 8 hour intervals. They found that the total dose of aqueous penicillin had to be increased as much as 200 times to cure rabbits in a single day. It appears, therefore, that if a relatively low penicillin blood level is sufficiently prolonged, a much smaller total dosage would produce an equally good result. In 1946, Fleming and Wolf,[2] using aqueous penicillin in syphilitic rabbits, were able to show that it required the same total dose of penicillin per kilogram to cure either early or late syphilis. If these results are applicable to human syphilis, then it should require no more penicillin for latent syphilis than is required for the treatment of secondary syphilis.

Since these earlier studies utilizing aqueous penicillin, new penicillin preparations have been developed, many with delayed absorption and prolonged elevation of the level in blood. Beginning in 1951, the most long acting of these, benzathine penicillin, was studied by Smith and others[6] in relation to venereal diseases. They were able to show that 2,500,000 units maintained an adequate penicillin blood level throughout a 16 day period. Stollerman and Rusoff[8] have observed assayable blood concentrations for as long as 28 days following the use of 1,250,000 units of benzathine penicillin. A single injection of benzathine penicillin thus maintains a steady blood level stimulating that obtained experimentally by Eagle, Magnuson, and Fleischman using multiple injections of the aqueous penicillin. Therefore, it would be anticipated that there would be a reduction in the total curative dosage of benzathine penicillin in comparison with the shorter acting penicillin preparations.

Smith and others[5] were able to compile a series of 274 cases of primary and secondary syphilis treated with a single injection of 2,500,000 units of ben-

zathine penicillin. Of these cases, 155 were secondary syphilis in which the accumulative retreatment rate was 5.5 per cent. They compared these cases with similar groups treated with 4,800,000 units of procaine penicillin, given either in a single session or in two to four sessions. The accumulative retreatment rates for these groups were 7.7 and 11.7 per cent respectively. They concluded that a single injection of 2,500,000 units of benzathine penicillin in early syphilis produced results equal, if not superior, to those obtained with schedules employing 4,800,000 units of procaine penicillin. On the basis of this work, in 1955 the United States Public Health Service[10] advocated the use of 2,400,000 units of benzathine penicillin in a single injection for the treatment of primary and secondary syphilis. In a recent report on the current status of therapy in syphilis, Thomas[9] recommended the use of 2,400,000 units of benzathine penicillin in the treatment of both early and latent syphilis.

Evaluation by Hahn and others[3] of 765 cases of asymptomatic neurosyphilis, treated with a variety of penicillin preparations and dosage schedules, showed the maximum probability of clinical progression to be only 0.55 per cent 1 year following treatment and only 1.69 per cent at the end of 3 years. Only 2 of the 12 patients who showed evidence of clinical progression received more than 4,800,000 units of penicillin, and in only 1 instance did progression occur more than 3 years following therapy. Laboratory evaluation[4] of these patients indicated the decrease in spinal fluid cell count to be the most sensitive index of adequate therapy, and of 454 patients with elevated cell counts initially, only 9 per cent were still elevated at the end of 1 year. None of the patients in this study, however, received benzathine penicillin. Smith and others[5] evaluated the use of 2,400,000 units of benzathine penicillin in the treatment of 47 active cases of asymptomatic neurosyphilis, as indicated by elevated spinal fluid cell counts, and compared the results with 53 similar cases treated with other penicillin preparations with dosages ranging from 4,000,000 to 5,900,000 units. Utilizing the failure of the spinal fluid cell counts to return to normal as the index of potential treatment failure, they found a 21 per cent potential failure rate at the end of 18 months in the benzathine penicillin group compared with 10.5 per cent for patients treated with the other penicillin preparations. On the basis of this comparative failure of 2,400,000 units of benzathine penicillin, we adopted the previously cited two treatment program utilizing 4,800,000 units of benzathine penicillin for the treatment of neurosyphilis. From our preliminary results, it appears that this schedule, using 4,800,000 units of benzathine penicillin, probably represents adequate therapy for asymptomatic neurosyphilis.

By 1956 Smith an others[5] had reviewed 19,000 cases of venereal disease treated with penicillin to determine the development of penicillin reactions. Approximately 12,000 of the patients received procaine penicillin and 7,000 were given benzathine penicillin. The reaction rate per 1,000 patients was 7.9 for the patients treated with procaine penicillin and only 2.4 for those treated with benzathine penicillin. The increased incidence of reactions with procaine penicillin might have been due to either the longer period of observation or the increased number of injections. The authors thought that this difference could be attributed primarily to the greater number of injections of procaine penicillin given. This conclusion seems justified since no significant difference in the incidence of reactions occurred when either form of penicillin was administered in a single session. They observed no increased tendency toward delayed reactions from benzathine penicillin, and recently, Stollerman[7] has reported that reactions to benzathine penicillin, when they develop, persist no longer than the average penicillin reaction despite the more prolonged blood level which it produces.

In addition to the decreased incidence of penicillin reactions, benzathine penicillin therapy greatly reduces the partial treatment problem which plagued physicians during the prepenicillin era and which was present to a lesser extent with prolonged penicillin schedules. Unless late manifestations of syphilis exist, treatment is completed at the time of diagnosis. Despite the increased cost of benzathine penicillin, it represents considerable financial saving to the patient in terms of return visits and absence from employment. In our clinic, the use of benzathine penicillin has enabled fewer personnel to handle more efficiently and follow more thoroughly a much greater volume of patients than ever before.

SUMMARY

Results are reported on 42 darkfield positive cases of early syphilis treated in a single session with 2,400,000 units of benzathine penicillin. At last observation, only 3 cases had titers of more than 4 Kahn units; all had follow-ups of 4 months or less. Two cases were retreated, one prophylactically during pregnancy, and the other in all probability because of reinfection. Preliminary results in 8 cases of neurosyphilis treated in 2 sessions with 4,800,000 units of benzathine penicillin indicate no evidence of relapse.

Experimental evidence is cited to demonstrate that a prolonged penicillin blood level reduces the total curative dose of penicillin. Earlier work with benzathine penicillin in the treatment of syphilis is reviewed. It is suggested that the use of benzathine penicillin would reduce the cost of treatment, the

likelihood of penicillin reactions, and the possibility of partial treatment.

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Dr. Montgomery, City Health Department, Houston.

Dr. Knox, Department of Dermatology, Baylor University College of Medicine, Houston.

Dr. Laurentz, Director of Public Health, City Health Department, Houston.

Big City Life Getting Healthier, Reports Health Foundation

America's big cities are almost as healthy to live in as are rural areas, reports the Health Information Foundation. The typical New Yorker in 1901 could expect to live 7 years less than the average American. Today, however, New Yorkers have practically the same life expectancy as the rest of the population. In the past, plagues and epidemics took a heavier toll of city dwellers, and infectious diseases flourished in the cities even in normal times.

"Regional differentials far overshadow rural-urban," reports officials of the foundation. Other factors, such as composition of the population and economic conditions, may be more important than rural-urban makeup in determining a region's mortality rate.

Medical Progress Told in JAMA

A series of 20 articles tracing the interdependence of medicine and the community appeared in the July 12 issue of the *Journal of the American Medical Association* as a special salute on the *Journal's* seventy-fifth anniversary. The salute, entitled "Partners in Progress" has only one physician, Dr. Gunnar Gundersen, President of the American Medical Association, among the authors. The remainder are acknowledged lay leaders in the fields of business, commerce, and industry.

Unresolved Otitis Media

A Serious New Problem

VICTOR GOODHILL, M.D.

Los Angeles, California

I CALL unresolved otitis media a new problem not because it never existed in the preantibiotic era, but because it was rare at that time. The advent of the antibiotic era has definitely increased the incidence and the severity of this clinical condition, which is a serious problem for all physicians who encounter respiratory and ear problems in their practice.

Whether or not the disease is due to changed bacterial physiology produced by antibiotics or whether it is due to a change in the host's reaction to such invaders, the end result remains the same. We find many patients, adults as well as children, with evidence of persistent otitis media, usually without pain and usually with an intact drum, who present themselves primarily because of a stuffy feeling in the ear or a hearing loss or both.

This disease has been called by many names, thus increasing the confusion. Among these names have been serous otitis media, nonsuppurative otitis, otitis media with effusion, hydropic otitis media, the glue ear, and unresolved otitis media.

ETIOLOGY AND PATHOLOGY

In reviewing important factors in the etiology of unresolved otitis media, it is helpful to evaluate both

Dr. Victor Goodhill, clinical professor of surgery (otology) at the University of Southern California School of Medicine, presented this paper as a refresher course at the Texas Medical Association annual session April 22, 1958, in Houston.

Unresolved otitis media has increased since the introduction of antibiotics. Prompt myringotomy in acute otitis media is prophylactic. Early recognition of the unresolved condition and adequate therapy will prevent many irreversible late sequelae which require major surgery. Predisposing and exciting factors, diagnostic symptoms and techniques, and therapeutic measures are discussed.

predisposing and exciting factors. Among the predisposing factors there are anatomic, pathologic, and physiologic deviations from the normal, and among the exciting factors there are inflammatory, allergenic, and pressure phenomena which must be considered.

The predisposing etiologic factors are first of all anatomic. Abnormalities of the posterior end of the nasal septum, congenital anomalies of the nasopharynx, tubal and tympanic atresias, all contribute to poor tubal ventilation and predispose to ascending persistent tympanic infections.

A number of pathologic predisposing factors may occur particularly in the nasopharynx and may include lymphoid hyperplasia due to adenoid hypertrophy or adenoid recurrence, polypoid degeneration of posterior turbinate tips, nasopharyngeal tumors, and infiltration by hematologic lesions such as leukemia, the lymphomas, and allied diseases. Such pathologic lesions may well produce complete or partial tubal obstruction with impaired ventilation and result in persistent unresolved otitis media.

Finally, among the predisposing factors must be mentioned the physiologic cellular abnormalities which may result in hypersecretion of tympanic serum either on neurovascular or neuroendocrine bases.

Among the exciting factors, the most important are, of course, the inflammatory lesions of the tubal and tympanic mucosa produced primarily by bacterial and viral organisms. While some of these organisms versus host states seem to favor a nonsuppurative response to invasion, the most common cause for the present increase in unresolved otitis media is the attenuation of organismal virulence by antibiotic therapy and incomplete bactericidal effect by antibiotics.

Allergy of the inhalant and ingestion type undoubtedly is a significant exciting factor in a number of cases.

The phenomena of pressure changes due to either intentional or nonintentional barotrauma to the nasopharynx and eustachian tube favor persistent fluid collections within the middle ear.

The pathology of unresolved otitis media is somewhat complex, and will vary with the etiologic factors in the individual case. Thus, cytologic examination of both the contents and the mucosa of such cases will show variations such as the following:

1. Purely inflammatory response with polymorphonuclear infiltration and typical purulent response to bacteria.
2. Allergenic response with a preponderance of eosinophils and perhaps plasma cells.
3. In the intrinsic varieties, where the physiologic alterations produce hypersecretion, a preponderance of epithelial cells and columnar cells may be found.

In general, pathologically, we are dealing usually with a persistent inflammatory mucositis in the eustachian tube, the middle ear, the attic, the mastoid antrum, and frequently the entire mastoid cellular system. Streptococci, Staphylococci, and Pneumococci are frequent offenders, but the Pseudomonas and Proteus groups are becoming increasingly prominent.

Cultures of middle ear secretions are difficult to obtain in an uncontaminated form. They are surprisingly sterile in many cases.

I cannot omit one unpleasant etiologic factor, namely, iatrogenic (physician-induced). Although many cases follow prompt and adequate care of the acute middle ear, a significant and large proportion of unresolved otitis media cases are undoubtedly due to reliance upon antibiotic therapy alone and neglected surgical drainage of the acute suppurative middle ear. It is admittedly a great temptation to forget about myringotomy when most patients respond promptly to antibiotics. But what do we mean by "respond promptly"? We usually mean cessation of pain, return to normal temperature, and apparent return to the normal otoscopic picture. Rarely are these patients followed by tuning fork tests, repeated otoscopic examinations, and more precise hearing tests. Thus, many of these patients may present themselves for otologic examination months or years after an acute otitis media. Therefore, the nonsurgical treatment of acute otitis media with secretion has resulted in many of the cases under discussion. They properly may be called "iatrogenic."

The course of the disease may be described usually as primarily subacute leading to the chronic state. In most instances, the acute otitis media with effusion is self limited and is reversible if tubal function returns to normal. The basic problem under discussion is usually chronic and is due to impairment of tubotympanic function along with other direct tympanic and occasional mastoid factors.

DIAGNOSIS

The symptoms in most patients are rather vague. In children there may be no symptoms at all other than the observation of a hearing impairment. In adults, there may be a greater awareness of the feeling of blockade, and patients may complain of a fullness or occasionally of an itching either in the ear or in that side of the head. There may be tinnitus of either the constant or pulsating type, and this tinnitus is usually a visceral tinnitus due to masking of ambient noise by the conductive hearing loss. The hearing loss may be exaggerated subjectively in adults and may be minimized in children. In adults, it may be exaggerated if the lesion is unilateral, since the contrast will produce greater awareness. It is not uncommon to find evidence of diplacusis, and the

patient may bring this to the physician's attention. Rarely is pain present, either in children or adults.

The diagnosis is not easy in many cases, because the ear drum may appear to be deceptively normal. It is only occasionally that one sees the classical meniscus fluid level with air bubbles which are pictured in so many textbooks.

Otoscopic examination must be done under both manifest and induced conditions. Under "manifest" otoscopy, the position of the tympanic membrane may either be normal, retracted, or slightly bulging, depending upon previous scarring, thickening, and the proportions of air to fluid within the tympanum. The tympanum itself either may show a clear-cut fluid level with meniscus line and fluid bubbles or may show nothing but an opalescent sheen which may be either very slightly colored or very dark, and range in color from yellow to brown to dark blue and even to almost blue-black in some cases, especially where there has been mucosal hemorrhage.

An important diagnostic technique is that of "induced" otoscopic examination in which changes are produced in the middle ear to mobilize the contained tympanic fluid. This either may be done by pneumatic massage through the external auditory canal, consisting of both pressure and suction, or may be produced following changes on either politzerization or tubal catheterization and inflation. These changes should be studied both otoscopically and by auscultation, and characteristic findings will appear on both types of examination. Under otoscopic examination, there will be visible fluid changes and bubbles, and under auscultation examination one may hear characteristic clickings and gurgles which are frequently diagnostic.

In some instances, the diagnosis cannot be made by either manifest or induced otoscopy and will depend upon diagnostic aspiration of each inferior tympanic quadrant. This may be done either by needle puncture and aspiration with a sterile needle and syringe, or by diagnostic myringotomy and suction tip aspiration. In some cases, the cytologic and bacteriologic examination of the aspirated fluid will be of great help in therapy, particularly in cases of long duration. Needle puncture and aspiration of each inferior quadrant (fig. 1a) is best accomplished by the use of a short bevel 1.75 inch 26 gauge needle attached to a dry sterile Luer-lock control syringe with finger rings through which suction is exerted upon the tympanic contents. Myringotomy (fig. 1b) is best accomplished by a very small sharp myringotomy knife with which two incisions are made—one in each inferior quadrant following which suction is applied alternately to the lips of each incision (fig. 1c). The contents are aspirated and saved in a collection tube for cytological and bacteriological studies.

In every case, audiometric examination is essential, except in infants where such studies are not conveniently performed, particularly where differential bone conduction and air conduction thresholds are necessary. A great variability will be found in audiometric studies. This variability will be characterized by daily and even hourly changes depending upon the degree of partial tubal drainage that may occur. In most instances, a bone-air gap will be demonstrable, particularly in the speech frequencies, but in occasional cases no such gap can be demonstrated. Recent experimental studies on the viscosity of tympanic fluids and their effects on cochlear potentials in animals have demonstrated that there can be a significant diminution in bone conduction thresholds due to impedance phenomena produced by viscous fluids in contact with the round window and the oval window regions.

No special type of conductive loss is demonstrable in unresolved otitis media. Thus, one may see low tone preponderance, occasional high tone preponderance, and frequent straight line defects as well as occasional notch defects. Straight line defects are most commonly observed. Tuning fork tests frequently will show negative Rinne responses, but may not if the air-bone gap is slight. Tuning fork tests frequently will show a referral of the Weber test to the affected side and also will show an impairment by air conduction on the affected side when com-

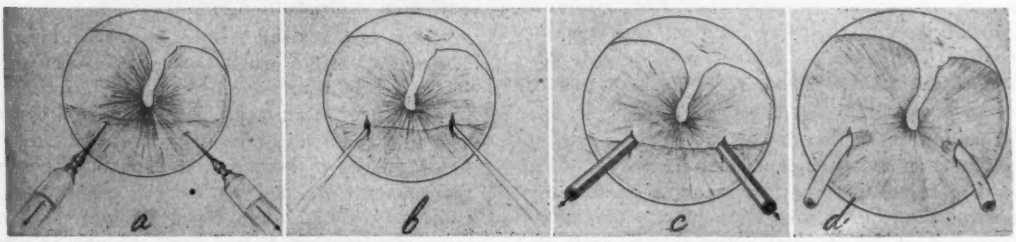

Fig. 1. Tympanic, diagnostic, and therapeutic procedures.

a. Diagnostic aspiration of each inferior quadrant.

b. Double myringotomy.

c. Suction to myringotomy incisions.

d. Polyethylene tube installations for further drainage. [After Goodhill, V.: Otosurgical Developments and Hard of Hearing Child, Tr. Am. Acad. Ophth. 61:711-722 (Nov.-Dec.) 1957.]

pared with the normal. Diplacusis often will be present.

It is important to remember that the audiometric findings may be variable and that in occasional cases of well demonstrated middle ear fluid, there may still be no clear-cut air-bone gap. This should not influence the diagnosis. There is no one infallible test. A proper diagnosis will depend upon a summation and evaluation of induced and manifest otoscopic findings, diagnostic aspiration, and audiometric analysis.

TREATMENT

The most important phase of any treatment is prophylaxis. Attention to the previously mentioned predisposing and exciting factors is certainly indicated. However, one important factor must be emphasized. The acute otitis media with secretion deserves not only proper and adequate antibiotic therapy but also prompt surgical drainage through myringotomy. This fundamental fact is ignored very frequently. It is surprising to hear physicians pride themselves on "not having done a myringotomy in years." It is certainly true that antibiotic therapy usually suffices in acute otitis media without suppuration. But the persistence of even sterile fluid as a sequel of otitis media is a threat not only to hearing but to the integrity of tympanic structures. Myringotomy again must take its logical place in the treatment of the acute middle ear.

In the treatment of the chronic disease, two basic principles must be kept in mind: (1) the elimination of the basic cause depending upon etiologic predisposing and exciting factors and (2) the elimination of fluid contents from the middle ear regardless of cause; such elimination should be repeated persistently regardless of frequency until the basic cause is eliminated.

This second factor cannot be stressed too much, since the persistence of fluid would predispose to a number of serious sequelae including tympanic fibrosis, cystic mucosal degeneration, and ossicular necrosis. These may be accompanied by deformations of the tympanic membrane which may reach irreversible stages.

Therefore, in the treatment, the careful study of the tympanic and paratympanic structures including the nasopharynx and the mastoid must precede any decisive therapeutic plan. Thus, nasal, sinus, nasopharyngeal, allergenic, and other factors must be carefully evaluated in each individual case. In some instances, such treatment in itself will be sufficient to encourage spontaneous resolution of an unresolved otitis media. Simple institution of adequate nasal ventilation, the utilization of proper antibiotic and antihistaminic drugs, simple antiallergic measures, and tubal inflation either by politzerization or catheterization may be sufficient to produce spontaneous resolution.

If such therapy and any other indicated nasal or nasopharyngeal therapy produce no significant change, then more direct approaches are indicated. The first approach is, of course, the mechanical removal of contained tympanic fluids, which cannot be stressed too much. In some cases, one simple needle aspiration (fig. 1a) using a 26 gauge 1.75 inch short bevel needle in a Luer-lock syringe without anesthesia will be adequate to induce resolution. However, in most instances, it will be more effective if a double myringotomy (fig. 1b) involving an incision in each inferior quadrant will be performed followed by alternate suction to the lips of each incision (fig. 1c). Such suction is frequently expedited if preceding politzerization or catheterization allows hypotympanic or tubal fluid to be brought into the tympanic cavity so that it may be more readily aspirated.

If aspiration reveals thin fluid and ready emptying of the middle ear, no further measures are indicated unless recurrences occur. If aspiration reveals a thick gluelike fluid with great difficulty in removal, it probably will be necessary to insert small polyethylene tubes for purposes of tympanic ventilation and drainage. It is wise to use two tubes, one in each inferior incision (fig. 1d), so that if one becomes plugged, the other one will still be effective in maintaining aeration and ventilation and possible drainage. Usually, polyethylene tubing size PE 90 is used, and each piece of tubing is cut in a beveled fashion so that it is easy to introduce. It is usually wise to leave each tube approximately 8 to 10 mm. in length; otherwise a tube occasionally may be lost in the middle ear and require a tympanotomy for recovery.

Stubborn cases of thick gluelike fluid in chronic unresolved otitis media may require repeated myringotomies and intubations before resolution and recovery of mucosal hyperplasia occurs. During such periods of attention to the tympanic problem per se, simultaneous attention to the nasal and nasopharyngeal areas is obviously indicated.

When such measures as described have been employed and there is still no evidence of spontaneous resolution as manifested by recurrent effusion and by continued deformations of the drum and ossicular chain, more thorough exploration is indicated. In most instances of this nature, an exploratory posterior tympanotomy is the first step, frequently accompanied also by an anterior tympanotomy. The posterior tympanotomy is performed through an omega incision (fig. 2a) on the posterior canal wall followed by reflection of skin and periosteum to the annulus, elevation of the annulus from the bony tympanic ring, and reflection of the posterior annu-

lar margin forward to expose the posterior one-half of the middle ear. Should anterior exploration be indicated, a triangular incision within the anterior half of the tympanic membrane as shown in figure 2b will be necessary, so that the tubal orifice region

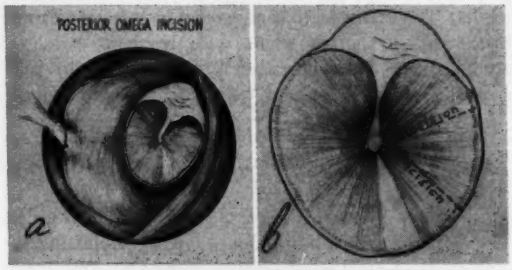

Fig. 2. Incisions for surgical exploration: **(a)** posterior omega incisions and **(b)** anterior tympanolysis incisions.

may be thoroughly explored. Closure of this anterior incision may require deepithelization and the use of a small skin graft, whereas closure of the posterior omega incision is easily performed by simple reapproximation of the incisional edges.

Such tympanotomy maneuvers, both posterior and anterior, may be necessary to break up scar tissue bands and drain small pockets of secretion which may not be reached through simple myringotomy and polyethylene intubation. I have termed these procedures "tympanolyses." These imply a meticulous removal of all scar tissue bands between the ossicles, between the ossicular chain and the drum (fig. 3a), and between the ossicular chain and the promontory (fig. 3b). Similar scar tissue bands must be removed from the region of the round window niche and from the anterior tympanic compartment where they may block ventilation through the eustachian tubal orifice (fig. 3c). Occasional cystic formations may be found blocking the tubal orifice rather significantly. Such anterior and/or posterior tympanolyses frequently may be followed by spontaneous resolution. It is usually advisable to fill the middle ear with a hydrocortisone solution to deter recurrence of fibrotic changes.

In a small number of cases, a chronic unresolved otitis media will be accompanied by a major change in the mastoid cellular mucosa, so that one deals not only with an unresolved otitis media but also with an unresolved persistent nonpurulent mastoiditis (fig. 4). When this occurs, it is rare to find resolution by simple tympanic therapy. In such cases, exploratory mastoidectomy usually involving an endaural simple mastoidectomy is necessary for eradication of secretory areas within the mastoid cells. Here, surgical exploration should be followed by prolonged drainage, usually by the use of a large polyethylene tube left in place within the mastoid antrum to emerge through the endaural incision (fig. 5a). It is usually

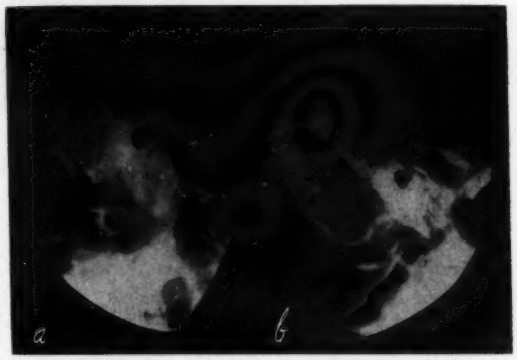

Fig. 4. Roentgenographic evidence of serous mastoiditis.

a. Involved side.

b. Normal side.

[After Goodhill, V.: Otosurgical Developments and Hard of Hearing Child, Tr. Am. Acad. Ophth. 61:711-722 (Nov.-Dec.) 1957.]

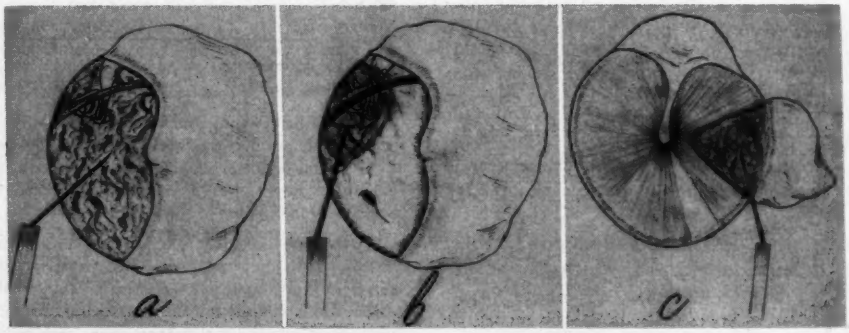

Fig. 3. Tympanolyses procedures.

a. Posterior tympanolysis with removal of diffuse posterior scars.

b. Posterior tympanolysis with dissection of peristapedial fibrous tent.

c. Anterior tympanolysis with dissection of peritubal fibrous tissue.

advisable to maintain polyethylene ventilation of both the mastoid and the middle ear areas by a large endaural mastoid tube and two small tympanic tubes. During the period of such tubal insertion, it is wise to maintain broad spectrum antibiotic coverage along with other necessary therapy to the nasopharynx and the nose.

In the event that the fibrotic changes are accompanied by irreversible mucosal changes and ossicular necrosis, recourse to reparative procedures may require one of the various types of tympanoplasty. Fortunately, it is now possible to repair ossicular damage by one of several rerouting operations. Thus, the most common type of ossicular necrosis, aseptic necrosis of the lenticular process of the incus (fig. 5b), may be repaired by doing a direct approximation of the tympanic membrane to the head of the stapes by myringostapediopexy (columellization) operation (fig. 5c). Other deformities of the ossicular chain may respond to other varieties of tympanoplasty. However, it is rare that there is need for such a radical step in the therapy of unresolved otitis media.

The prompt recognition of this disease and the prompt elimination of contained tympanic fluid will do much to prevent these major late changes and the need for major procedures of the tympanoplasty variety.

In general, the treatment of unresolved otitis media is best done through prophylaxis, which is true in most medical problems. However, if one is faced with the disease, it is possible to hope for recovery in the vast majority of the cases by the institution of methodical therapy such as outlined. It is only rare that one encounters irreversible changes calling for major reconstructive operations.

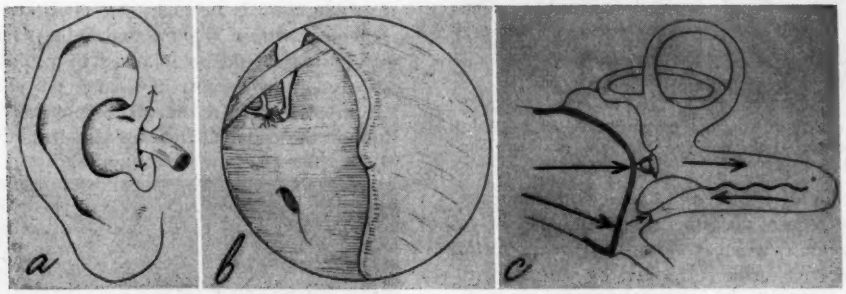

Fig. 5a. Prolonged polyethylene endaural drainage.
b. Necrosis of lenticular process of the incus.
c. Type 3 tympanoplasty (columellization or myringostapediopexy). Note the absence of the malleus and incus. A graft covers the perforation and is in contact with the stapedial capitulum.

[Figures 5a and b: After Goodhill, V.: Otosurgical Developments and Hard of Hearing Child, Tr. Am. Acad. Ophth. 61:711-722 (Nov.-Dec.) 1957.]

SUMMARY

The new problem of unresolved otitis media has occurred as a result of changed bacterial flora probably induced by the antibiotic era and by lack of adequate myringotomy in early otitis media. The prophylaxis of unresolved otitis media would be based primarily on prompt myringotomy in acute otitis media. Too many acute middle ears have been treated by antibiotic therapy alone with resultant painless accumulations of fluid. Prompt recognition of unresolved otitis media and its adequate therapy will prevent many of the irreversible late sequelae which will then call for major otologic surgical procedures, including mastoidectomy and tympanoplasty.

No physician who treats respiratory infections and ear diseases can afford to ignore the serious consideration of the prevention of this disease and its prompt recognition and therapy.

♦ Dr. Goodhill, Suite 400, 2007 Wilshire Blvd., Los Angeles 57.

Arthritis Fellowships Begin July 1, 1959

The Arthritis and Rheumatism Foundation is offering predoctoral, postdoctoral, and senior investigatorship awards in the fundamental sciences related to arthritis for work beginning July 1, 1959. Deadline for applications is October 31, 1958.

Awards are intended as fellowships to advance the training of young men and women of promise for an investigative or teaching career. A sum of $500 will be paid to cover the laboratory expenses of each postdoctoral fellow and senior investigator and an equal sum will be paid to cover the tuition expenses of each predoctoral fellow. For additional information and application forms, those interested may write the Medical Director, Arthritis and Rheumatism Foundation, 10 Columbus Circle, New York 19.

Adrenal Steroids In Allergy

A Critical Appraisal

WILLIAM C. GRATER, M.D.

Dallas, Texas

SELDOM does a group of drugs have such a tremendous influence on the field of medicine as have adrenal corticosteroids on the field of allergy. Furthermore, their dramatic effectiveness in heretofore resistant allergies has led to wide usage. It is likely that steroid therapy has been more successful in allergic disorders than in other fields of medicine, partly because some of the acute processes such as drug reactions, status asthmaticus, and severe contact dermatitis are often self limited and partly because most topical steroid preparations can be used indefinitely on the skin and mucous membranes without danger of untoward systemic effects.

Dr. William C. Grater, an allergist, presented this paper for the Section on Internal Medicine, Texas Medical Association annual session, April 21, 1958, in Houston.

Steroid therapy can yield dramatic symptomatic relief of symptoms in allergic conditions. A variety of adrenal corticosteroids are available, the more recent ones with fewer adverse side effects than those first used. Powerful and diverse metabolic processes are influenced by the steroids, however, and they should be used with discrimination and caution.

According to a survey of general practitioners,[3] 90 per cent of whom use steroids in their practice, 10 out of 12 of the commonest conditions in which corticosteroids were employed were allergic in nature. In order of frequency these conditions were rheumatoid arthritis, bronchial asthma, drug reactions, urticaria, allergic eye disease, contact dermatitis, rheumatic fever, eczema, dermatitis venenata, angio-edema, hay fever, and vasomotor rhinitis. Although rheumatoid arthritis and rheumatic fever ordinarily are not considered fundamentally allergic diseases, they do have some hypersensitive aspects.

DRUGS AVAILABLE

When the intact adrenal cortex is stimulated by corticotropin, a variety of substances are liberated. Between 30 and 40 steroid compounds have been isolated. Some of these have been synthesized and produced commercially for therapeutic use. Both mineralocorticoids and glucocorticoids are produced by the adrenal cortex. To some extent, these groups have opposing actions. It is the glucocorticoids that are of interest in allergic therapy.

In addition to these natural compounds, a number of derivatives and analogues have been discovered. Some of these possess a higher degree of activity and may be lacking in one or more undesirable effects. Extensive pharmacologic research by drug manufacturers has developed new compounds and has substantially increased basic knowledge. It is possible that steroid therapy is still in its infancy and that the drugs presently available will be supplanted by more specific and potent compounds with fewer unwanted side effects.

Cortisone was introduced in 1949. Although useful, it was slow, was relatively ineffective when applied topically to lesions of the skin and mucous membranes, and had a definite tendency to disturb water and electrolyte balance.

Hydrocortisone was definitely an advance. Hydrocortisone is the predominating corticosteroid elaborated naturally by the adrenal cortex. It is somewhat more potent in effect than cortisone, swifter in action, and of considerable effectiveness on the skin and mucous membranes when used locally. Furthermore, a salt, hydrocortisone hemisuccinate, is ideal for intravenous use. This is helpful for emergency use in patients who are unable to take oral medication.

Corticotropin, the adrenocortical hormone, is a product of animal pituitaries. It is commercially available in both aqueous and more slowly absorbed gelatin preparations. The slow intravenous drip method of administration gives maximum stimulation of the adrenal cortex with resultant production of a large number of corticoids, presuming the presence of an intact, functioning adrenal cortex. With the use of the long acting corticotropin preparations, there is less likelihood of running into the problem of having the drug stopped suddenly, followed by hypoadrenalism. The tapering-off effect may be of benefit in alleviating the rebound phenomenon sometimes noted in severe allergic dermatoses. Electrolyte and water balance problems associated with corticotropin treatment are similar to those of hydrocortisone.

Corticotropin, being a protein, is capable of producing sensitization. Feinberg and co-workers[7] reported a case sensitive not only to corticotropin, but also to all other available anterior pituitary preparations. Antibodies to these anterior pituitary prepara-

tions could be demonstrated. The clinical manifestations were those of anaphylaxis.

Prednisone and prednisolone are dehydrogenated analogues of cortisone and hydrocortisone respectively. They were soon recognized as superior to their parent compounds in being four to five times as potent. In addition they were far less likely to promote sodium and water retention, potassium loss, and elevation of blood pressure. Special diets are, therefore, not as necessary when prednisone and prednisolone are used. Taub and co-workers[22] pronounced them "one of the greatest advances in the armamentarium of drugs used for allergic disease, especially bronchial asthma."

Triamcinolone is a fluorinated hydroxyprednisolone. In the treatment of allergies, Sherwood and Cooke[20] reported it to be more potent and to have less sodium and water retention as compared to prednisone and prednisolone. Whereas the earlier steroids were prone to cause electrolyte imbalance and edema, triamcinolone appears to have a diuretic effect. The combination of anti-inflammatory and diuretic effects theoretically would be of considerable value in treating asthma complicated by cor pulmonale and right heart failure.

In 1957, methylprednisolone (Medrol—Upjohn) was introduced. In animal tests[16] it is approximately three times as potent as prednisolone and 10 times as potent as hydrocortisone when tested by the liver glycogen deposition and granuloma pouch methods. Also, methylprednisolone is less susceptible to enzymatic reduction by the liver.

In clinical studies on allergic patients, one group[9] found methylprednisolone, when compared with prednisone and prednisolone to manifest less tendency to stimulate the appetite and less to create salt and water retention. Methylprednisolone was also somewhat more potent clinically.

TABLE 1.—*Results of Therapy with Medrol.*

Disorder	Satisfactory Result	Unsatisfactory Result
Allergic rhinitis	21	2
Asthma	35	4
Allergic rhinitis and asthma	36	2
Erythema multiforme	3	0
Drug reactions	3	0
Contact dermatitis	7	0
Eczema	2	0
Total	107	8

My results to date with methylprednisolone are listed in table 1. It is my impression that methylprednisolone is a very potent and effective steroid.

MODE OF ACTION

The mode of action of steroids in the allergic disorders never has been clearly delineated. It is now generally agreed that a reduction in reticuloendothelial activity is at least partly responsible for the beneficial effects. Thus the anti-inflammatory effect is a useful common denominator.

It has been well documented that steroids protect neither against histamine nor against anaphylaxis.[6] The level of the circulating antibodies responsible for positive skin tests remains unchanged. The Arthus phenomenon and experimental hypersensitivity in rabbits of the periarteritis type as described by Rich is inhibited by prior treatment with the hormones. The exact mechanism is in doubt. It is known that adrenal steroid therapy will reduce the intensity of the tuberculin type of reaction. It also reduces the inflammatory reaction of tissues to various stimuli such as infections, wound healing, chemical irritation, and burns.

Ebert and Barclay[5] used the rabbit-ear-chamber technique which provides direct observation under high magnification over a period of time. They found in all the inflammatory reaction studies, whether specific or nonspecific, cortisone appeared to exert much the same effect. There was better maintenance of vascular tone, a reduction in damage in both arteriolar and venule endothelium, and an increased integrity of vascular endothelium, resulting in less diapedesis of leukocytes and a reduction of exudate. It has been shown[8, 21] that hyaluronidase activity is also diminished.

In hay fever and asthma, Stier and others[8, 21] showed objectively that cortisone, given out of season, decreased the sensitivity of the ophthalmic, nasal, and bronchial mucosa to ragweed extract with the greatest change occurring in the organs primarily affected. There was no detectable change in the titer of the skin sensitizing antibody or the thermostabile antibody in the patients treated.

COMPLICATIONS

Since steroids exert such a profound effect on diverse metabolic processes, it is no wonder that they have many adverse side reactions. With the realization that occasionally severe reactions, even death, may occur, some clinicians[11, 15] have sounded sober warnings.

In an excellent article, Bukantz and Aubuchon[2] considered the laboratory and clinical control of complications. They divided the complications into two groups; (1) those due to hormone excess and (2) those due to the anti-inflammatory and infection promoting effects. In the hormone excess group they listed Cushing's syndrome, growth arrest, diabetes

mellitus, osteoporosis, and psychosis. In the anti-inflammatory and infection promoting group they listed virus, bacterial and fungal infections, peptic ulcer, and periarteritis. They concluded that a physician using steroids should have an awareness of the hazards and a knowledge of the mechanism of their production. Furthermore, he should closely supervise the patient before, during, and after sterotherapy. They felt the prompt application of appropriate prophylactic and remedial treatment can greatly lessen the dangers of steroid usage and safely extend the range of its application.

Interendocrine Effects.—The pituitary-adrenal axis is of course disturbed by steroid therapy. Administration of corticotropin reduces pituitary activity, and exogenous steroids do the same to the adrenal cortex. On cessation of cortisone therapy, functional impairment of the adrenal cortex is often present. According to Boland,[1] as measured by the eosinopenic response to corticotropin, a return of the pretreatment value within 30 days is usually noted. Theoretically this relative adrenal insufficiency may follow either corticotropin or adrenal steroid therapy. However, the pathological reports of adrenal cortical atrophy causing postoperative adrenal insufficiency and death have occurred only after steroids.[19] Fortunately, this complication is rare.

Psychic Disturbances.—Disturbances of the psyche are probably the most common of all the side effects. All kinds ranging from frank psychoses and convulsions to simple anxiety have been reported. Apparently stimulation of whatever psychological processes are present is the cause. Allergy patients often have a considerable psychological component to their illnesses and are often disturbed before any kind of therapy. Psychological problems are perhaps the most common cause for discontinuation of therapy. Then on the other hand, many patients feel better, are elated, and some are even euphoric.

Relation to Infection.—When it was first discovered that steroids promote bacterial invasion in the experimental animal, their use in the presence of infection was considered contraindicated. Several years passed before it was noted[10] that the steroid dosage used by the early investigators was truly massive. It was found that steroids do not interfere with the action of antibiotics when the steroids are used in dosages comparable to those used in clinical medicine.

The combined use of steroids and antibiotics in allergies associated with infection has proved of considerable value. In the treatment of 102 cases of respiratory allergy associated with infection, good results were noted in 92, using combined tetracycline and prednisolone. There was no instance of enhancement of the infection. Hurwitz[14] considered combined steroid-antibiotic therapy the most rational method of preventing an asthmatic from lapsing into a chronic and intractable state. There is little doubt that combined therapy also lessens dangers arising from infection masked by antiphlogistic effect of the steroid.

The problem of virus infections is more complicated and potentially more serious. This is particularly true of herpes simplex, vaccinia, and varicella.[17] Steroids increase the invasiveness of these organisms. Unfortunately, there is no effective antibiotic available. On the other hand, steroids have found a place in the treatment of some cases of infectious hepatitis.[13]

In 6 years' experience with adrenal corticosteroids, I have treated more than 500 patients systemically and 350 with local application to the skin or mucous membranes. There was no instance of psychosis, osteoporosis, nor exacerbation of peptic ulcer or tuberculosis. In fact, no serious difficulty was encountered. The main symptoms were psychological. In this series, there was no long-term therapy and the patients were carefully selected and closely observed. In my opinion, constant vigilance, short-term therapy, lowest possible dosage, use of adjunctive measures such as antibiotics, sedatives, and antihistamines are all of utmost importance in preventing serious and distressing complications.

CLINICAL CONSIDERATIONS

Because of their dramatic efficacy, steroids have become increasingly popular in treatment of allergies. From 80 to 95 per cent of such cases can expect satisfactory relief of symptoms. In fact, one group[2] considers that "the failure to respond to adequate dosage of the steroids should lead to the suspicion that an incorrect diagnosis had been made."

To an allergist, one of the most useful aspects of steroids is the temporary suppression of symptoms while an allergy investigation is conducted. This often obviates hospitalization and extensive use of adrenalin-like drugs. Since steroids do not affect circulating antibodies or the immediate wheal reaction, the majority of skin tests can be made concomitant with steroid therapy. Only patch and delayed inflammatory tests are affected. If the cause of the allergy can be determined and appropriate therapy instituted, there is less likelihood of a return of symptoms when steroids are discontinued.

In general, systemic therapy is begun with the thought of suppressing the disease. This varies considerably depending on the activity of the process. Once suppression is accomplished, the dose is gradually reduced. If the disease is chronic, maintenance dosage for an extended period may be required. In maintenance, the smallest total daily dose necessary to control the most distressing symptoms is used. It is not necessary in most instances completely to suppress

the process. Exacerbations may require higher dosage temporarily. This is especially true when stresses such as trauma, increased physical activity, or infection intervene. When therapy is discontinued, it must be done gradually to prevent withdrawal symptoms.

In essaying the evaluation of any treatment of any allergy, it should be realized that allergic disorders are notoriously prone to unpredictable remissions. Sometimes this is due to lack of contact with the cause and sometimes it is spontaneous, the cause remaining obscure.

Results in Asthma.—Asthma often can be divided into two main types. One is allergic asthma due to contact with an extrinsic antigen such as pollen, mold, or dust. This type is usually seen in younger persons and, as a rule, responds readily to specific allergic therapy of avoidance and hyposensitization. Deaths, unless due to a drug, are uncommon. The other type is intrinsic asthma, a disorder of older age groups, often associated with infection but with no definite known allergen involved. This is more serious and stubborn. Occasionally the patients become adrenalin and aminophyllin resistant and often are completely incapacitated. Most of the deaths reported are from this group. When conventional therapy fails, corticotropin or adrenal steroids are often lifesaving. Undoubtedly many otherwise hopeless pulmonary cripples have been made reasonably comfortable and brought back into a useful existence. In this connection it should be noted that steroid therapy often allows the physician to assess the degree of irreversible pulmonary damage. This is of definite aid in prognosis. Unfortunately, the intrinsic group is that in which symptoms soon return after discontinuance of steroid therapy. Maintenance dosages are often fairly high. Patients are in an age group in which peptic ulcer and osteoporosis can be common complications. Thus the physician who initiated steroid therapy often finds himself in a dilemma. Shall he allow the return of the severe, incapacitating symptoms or run the risk of complications incident to long-term therapy? This is often no easy decision.

Results in Allergic Dermatoses.—Urticaria will respond often though irregularly to hormone treatment. In most cases, older, conventional treatment can be instituted satisfactorily and with much less hazard. In urticaria due to drugs, the response to steroids is often gratifying. It is noted in drug reactions that the urticaria often will respond to adrenalin or antihistamines, but when fever, arthritis, and carditis are present, only steroid therapy is effective. Exfoliative dermatitis and erythema multiforme usually respond satisfactorily. Severe contact dermatitis, being self limited when the contact is eliminated, is often ideally treated with hormones.

Enthusiasm for systemic steroid therapy of atopic dermatitis has dissipated. Although many cases respond temporarily and dramatically, many investigators[18] are pessimistic concerning the long-term outlook. Downing[4] noted that if the dermatitis recurs after the administration of steroids, it is severe and will prove resistant to all types of treatment. Some patients, having received relief from the severe itching for the first time, are very difficult to withdraw from hormone therapy, even in the presence of serious side effects.

Fortunately, topical therapy with hydrocortisone or prednisolone applications is devoid of systemic effect. Local steroid therapy, often combined with antibiotics, has become the symptomatic treatment of choice in allergies of the skin. My results are shown in table 2. Considering the fact that many of these cases were chronic and resistant to previous therapies, the results are excellent. Table 3 shows the results of a clinical comparison of 1 per cent hydrocortisone (Cortifan*) and 0.5 per cent prednisolone (Meti-Derm*). This was done by the paired simultaneous comparison method using Kodachrome pictures taken with a Coreco color camera. It is to be noted that prednisolone (Meti-Derm) is as good or better in 27 of the 28 comparisons. These results are in substantial agreement with those of Zimmerman,[23] who found prednisolone alcohol topically applied was approximately twice as potent as hydrocortisone free alcohol.

Results in Mucous Membranes.—In topical therapy

**Obtained from the Schering Corporation.*

TABLE 2.—*Summary of Local Steroid Therapy, Using Meti-Derm and Cortifan, in 138 Patients with Allergies of the Skin.*

Diagnosis	Meti-Derm		Meti-Derm with Neomycin		Cortifan	
	Satisfactory Results	Unsatisfactory Results	Satisfactory Results	Unsatisfactory Results	Satisfactory Results	Unsatisfactory Results
Contact dermatitis	16	2	9	0	17	3
Atopic dermatitis	27	3	21	5	29	2
"Id" reaction	2	1	1	0	1	1
Vesicular dermatitis of hands	2	2	2	1	0	1
Drug sensitivity	1	0	3	2	0	2
Miscellaneous	6	2	1	1	0	0
Totals	54	10	37	9	47	9

on the allergic mucous membranes, ophthalmic preparations are often dramatically effective. They have proved exceedingly useful to the ophthalmologist. On the allergic nasal mucous membrane the problem is somewhat more complicated since there are many factors involved. However, double blind label studies using placebos definitely have proven the steroids to be effective.[12] Aerosolization of steroids for pulmonary therapy is still in the experimental stage.

TABLE 3.—*Simultaneous Comparison of Meti-Derm (0.5 Per Cent Prednisolone Alcohol) and Cortifan (1 Per Cent Hydrocortisone Free Alcohol) on Similar Sites.*

Meti-Derm better	8
Cortifan better	1
No difference	19
Total	28

ABUSE OF STEROID THERAPY

Steroids have been available only a relatively short time, and since early enthusiasm demanded their use in a wide variety of miscellaneous entities, the results of abuse of these powerful agents has become evident only recently.

Poor selection of cases is one prime example of abuse. The contraindications are well known. Certainly a chest roentgenogram and a careful clinical history always should be made. An unstable personality is a relative contraindication. There are certain conditions which will respond to conventional and less dangerous therapy, for example, urticaria. Most authorities agree that in atopic dermatitis considerable thought should be given the situation before systemic adrenal therapy is begun.

Another error often seen is the lack of close clinical and laboratory surveillance of the patient. Such attention will prevent or detect early complications. Furthermore, it will decrease the tendency to allow the intended short-term therapy actually to become long-term in scope. By keeping the situation under control, the physician may prevent the patient from obtaining supplies of steroids without medical consent. It may be wise to put an "N.R." on all steroid prescriptions.

The most common and serious error seems to be the lack of thorough allergic investigation. For the busy and harassed physician, it is much easier to prescribe steroids for the gasping patient. Here then, we grasp the heart of the problem. Steroid therapy cures nothing. At best it can give only temporary protection, and the symptoms usually return on discontinuing. More lasting and satisfactory results will be obtained through well rounded allergy therapy.

CONCLUSION

Steroid therapy, 10 years' experience shows, can yield dramatic symptomatic relief of allergic symptoms. But, unfortunately, the abuse of steroid therapy is becoming altogether too common. It is the obligation of the prescribing physician to exercise due caution and constant surveillance before, during, and after steroid therapy. The complications of long-term steroid therapy are many and often serious. The physician should be thoroughly aware of these. It is likely that topical therapy of certain disorders of the skin and mucous membranes should be more fully explored.

Steroid therapy does not change the nature of the allergic process. It should be considered a powerfully effective medication in the over-all care of the allergic patient—a bright sword with double edges.

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♦ Dr. Grater, 1620 Medical Arts Building, Dallas.

Treatment Of Common Dermatoses

GEORGE M. LEWIS, M.D.

New York, New York

COMMONLY observed skin disorders often are taken for granted and frequently are neglected as unimportant. This is particularly true of acne, which is so common as to approach the category of a normal physiologic state. The general practitioner often should be able successfully to manage acne as well as many other disorders of the skin. When progress is not satisfactory, however, he should enlist the help of a dermatologist. Not all common skin diseases are necessarily easy to cure. Perhaps one of the more common mistakes is to underestimate the difficulty of achieving good results.

Dr. George M. Lewis of the Department of Medicine (Dermatology) at New York Hospital and Cornell University Medical College presented this paper as a refresher course at the annual session of the Texas Medical Association, April 22, 1958, in Houston.

The general nature and treatment of six skin disorders are outlined. Included are acne, fungous infections, contact dermatitis, neurodermatitis, seborrheic dermatitis, and cutaneous malignancy. Accurate diagnosis, supported if indicated by laboratory studies, is important. Prompt treatment of malignant lesions is vital.

It is important that a correct diagnosis be made. Often this is possible by inspection alone. However, the physical examination should be preceded by a careful history and in appropriate cases should be followed by laboratory or other tests. In many instances of contact dermatitis, finding the cause is not only desirable but necessary if a cure is to be obtained. It is vital that patients with skin malignancies should not be neglected because the disorder is not correctly identified or because therapy is inadequate or inappropriate.

TREATMENT PROCEDURES

The following are the chief types of therapy available to treat disorders of the skin:

1. Local applications may be wet dressings, lotions, pastes, ointments, powders, paints, plasters, destructive chemicals, soaps, and soap substitutes. The appropriate remedy may be protective, soothing, antipruritic, peeling, stimulating, or antimicrobic.

2. Internal remedies by mouth or by injection are of many kinds. Antimicrobials and antihistamines are utilized frequently. Sedatives, tranquilizers, and vaccines are used not uncommonly. Certain drugs, formerly popular, such as arsenic, bismuth, and gold salts now are seldom employed. Corticotrophin and corticosteroids by systemic administration have only limited application to dermatology and are usually contraindicated. Thyroid extract and androgenic and estrogenic hormones are useful for appropriate indications. Vitamins should be in supply; vitamin A is particularly important.

3. Physical agents are numerous. The roentgen rays are useful in a diverse number of situations including epilation of a scalp for tinea capitis, intensively for certain malignancies, semi-intensively for warts, keloids, and angiomas, and fractionally in many selected dermatoses. Ultraviolet rays are often helpful. Electrodesiccation and galvanic current electrolysis are indispensable. Refrigeration by solid carbon dioxide or liquid nitrogen is also a valuable procedure.

4. Surgical measures include incisions, excisions, and surgical planing.

5. Diet has some use. Limitation of foods for diagnostic purposes has limited usefulness. Restriction of fats or stimulants, and a high protein diet are often advisable adjuncts.

6. Psychological guidance and a friendly doctor-patient relationship may be important. Sometimes the dermatosis signals an underlying conflict. Also, the impact of the disorder on the patient may be profound, as is frequently the case with acne.

The management of six selected skin disorders will be discussed.

ACNE

Acne is basically a developmental (endocrine) disorder. Other etiologic factors include pyogenic infection, faulty diet, seborrhea, and tension. The sebaceous glands are hyperactive, and the follicular orifices become plugged.

Treatment should include a topical preparation to produce peeling of the affected skin. Sulfur, resorcin, and salicylic acid, either singly or in combination, are used most commonly. Lotio alba frequently is prescribed to apply at bedtime. Lava soap may be suggested to wash the involved skin area daily. Chocolate in all forms should be abandoned entirely, but hard candy may be allowed in moderate amounts. Vitamin A, 50,000 units daily in courses for 3 or 4 weeks followed by 1 or 2 weeks' rest and then repeated, may be helpful. Small doses of thyroid extract and in girls, estrogenic hormone, taken only during the last half of the menstrual cycle, are also of assistance in many patients. Natural sunlight or artificial ultraviolet exposures have limited, but often a useful effect. In severe pustular acne, a short course of a tetracycline drug may be advisable such as 250 mg. three times daily for 3 days, followed by 1 week of rest. This sequence may be repeated several times. Roentgen-ray therapy should not be denied to selected patients with a recalcitrant form of the disease, but this modality should be administered only by a dermatologist who is familiar with all the intricacies involved.

Finally, many dermatologists now are using a procedure known as surgical planing or dermabrasion for the treatment of scars resulting from pustular acne. This is a fairly successful procedure and carefully performed is better than all previous efforts.

FUNGOUS INFECTIONS

There are many clinical expressions caused by the invasion of pathogenic fungi. Some of these are capable of deep invasion to vital organs such as the brain or lungs. Others are confined to the skin and often are disabling. Two of the common regional varieties of superficial mycoses will be discussed.

Tinea Capitis.—The majority of the patients with tinea capitis are children although Pipkin has found that many adults develop the type caused by Trichophyton tonsurans. Tinea capitis may be suspected when there is patchy loss of hair accompanied by scaling and often by other evidence of inflammation. There is considerable variation in response to treatment depending on the species of fungus invading the scalp. Consequently, cultural study of each patient is highly desirable.

The following treatment procedures should be considered:

1. Roentgen-ray epilation requires specialist administration and after care. Often, the temporary removal of scalp hair by roentgen rays is the definitive treatment for infections caused by Microsporum audouini and T. tonsurans.

2. Local therapy is advisable for every patient to help contain the disease and is the type of active treatment found effective for the inflammatory infections due to M. canis or T. mentagrophytes. Drugs commonly employed are ammoniated mercury, salicylic acid, the fatty acids, thymol, and iodine, often in combination of two or more in an ointment base.

3. Other children should be examined for evidence of minimal infection. The fluorescence test (Wood light) should be included in the survey. This cannot be used to exclude a fungous infection of the scalp, but often will disclose a minimal expression which otherwise might be overlooked.

Tinea Pedis.—Fungous infection of the feet and nails is exceedingly common. Children are not often affected, but young adults are particularly prone to acquire the disease. One must be careful not to overtreat the inflammatory types. A cultural diagnosis is of great assistance. In T. rubrum infections, the process is chronic and usually of long standing. One may have to be satisfied with slow progress. Infections caused by T. mentagrophytes are more acute. Here the outlook for cure is good and mild remedies are usually best. One should be certain to rule out contact dermatitis from shoe dye or other allergens.

1. Local treatment should consist of potassium permanganate (1:10,000 solution) wet dressings or soaks or application of soothing agents, such as 1 per cent aqueous gentian violet if the process is acute. In the more chronic forms, compound ointment of benzoic acid (Whitfield's ointment) is usually prescribed. Other ointments include undecylenic acid or other fatty acids, Asterol, iodine, and sulfur. A boric acid powder may be applied in the morning. Infected nails should be scraped down and the ointment overlaid with adhesive plaster.

2. Surgical evulsion of infected toenails should be preceded by treatment of all nearby skin infections.

3. Internal and biologic remedies are not helpful in the majority of instances.

CONTACT DERMATITIS

A distinction is usually made between a sensitizing variety of contact dermatitis and the type caused by a primary irritant. The clinical picture is polymorphous with a variety of responses depending on the patient and on the inciting agent. With some, a simple erythema is the only clinical expression; in other cases, edema appears; in still others, vesicles

or pustules. In highly sensitive patients or when the allergen is potent or the offending drug is in strong concentration, bullae and even necrotic areas may appear. The first principle of treatment is to bar any further contact with the causal agent. Consequently, there must be a major effort made to determine the cause.

Sometimes, as in poison ivy, the history and the rapid appearance and spread of a vesiculo-bullous eruption are sufficient to make a correct diagnosis. This also is true for sensitivity to nail polish, which commonly affects the eyelids or side of the neck, is pruritic, and responds as a sharply limited plaque of red and slightly edematous skin. There are other syndromes in which an experienced observer has little difficulty in deciding the etiologic agent.

Frequently, however, an immediate and exact diagnosis is impossible. In such cases the use of patch testing may be indicated. A careful history is taken and a list made of possible allergenic substances. These are applied in suitable concentration to the unbroken skin and strapped on for a requisite period, usually 24 hours. In testing, one must be careful not to apply any chemical full strength which would irritate or damage everybody's skin, such as soap or strong alkalies or acids. One also should caution the patient to remove any test material immediately if there is intense itching or burning or if the involved or adjacent skin becomes swollen. This might indicate an instance of extreme sensitivity, and allowing the test material to remain in situ would be hazardous. The next step (and this may be done while the patient is being investigated) is to prescribe soothing and appropriate topical treatment.

For an erythematous rash, a simple barrier cream such as boric acid 2 per cent in petrolatum alba may suffice. Neocalamine lotion is useful when there is exudation and for large flat areas of skin. It is unwise to suggest a proprietary preparation which might contain some irritating ingredient. Hydrocortisone cream may be effective, but the immediate results may lull one into the erroneous belief that a magical cure has been obtained. Sometimes this rapid response is a disservice as the patient may be less interested than he should in trying to help discover the cause. After some weeks in which an eruption is kept partially suppressed, the more logical approach of finding the cause with more hope for a permanent solution to the problem is undertaken. For a vesiculobullous eruption, wet dressings of dilute Burow's solution or of boric acid and saline solution are to be considered, usually for limited periods of ½ to 1 hour repeated several times daily. The dressing should not be allowed to dry out.

Contact dermatitis of the hands often caused by soaps or other detergents or by bleaches or other chemicals deserves some special consideration. Housewives are involved commonly, but bartenders, waiters, and industrial workers may be affected. For the most part the eruption is an irritative reaction. In this location, too, it is extremely difficult to prevent continued contact with the offending agent or agents, and, of course, a chronic dermatitis may result. When the patient realizes the necessity for careful avoidance of the causal agent, considerable progress has been made. A soap substitute may be used, such as Phisoderm, Dermolate, or Lowila. It is usually best to use lined rubber gloves when the hands are frequently in dish water or when water and detergents are being used. The application of a silicon preparation is effective sometimes in providing a chemical barrier. When pruritus is a problem, one should not overlook the help to be obtained from antihistamine drugs taken orally. They are not usually advised in preparations to be applied locally as there is a tendency further to irritate inflamed skin. The same applies to many applications containing antipruritic drugs, such as menthol or Anaesthesin, which may accentuate the existing inflammatory response although the immediate effect may be relief.

There are a multitude of other remedies, and many are helpful. It should be stressed again that proprietary medications should not be prescribed. A contact dermatitis is not uncommonly present as a complication of neurodermatitis, of seborrheic dermatitis, or of some other dermatosis that has been treated too vigorously. It therefore may be important to carry out multiple procedures in order to obtain the best results. Physical agents are not often useful. Ultraviolet rays are usually contraindicated. The roentgen rays are occasionally helpful in fractional doses of 75 r once weekly to limited areas of skin.

NEURODERMATITIS (ATOPIC ECZEMA)

In the usually dry, plaquey, pruritic eruption of neurodermatitis there is often a family history of hay fever, asthma, or eczema, and sometimes the patient also has had other allergic disorders prior to the onset of the dermatitis. The disease may appear early in life as infantile eczema and in this form may persist, if untreated, for many years. The localized form may appear first at one of the stressful periods of life such as puberty, early adult life (particularly in young housewives), or at the time of the menopause. No age is exempt. Because of the scratching, there is often secondary infection. When the hands are involved, secondary contact dermatitis is frequent. Pruritus ani also belongs in this group.

One outstanding admonition particularly important in the generalized variety is that physicians should not prescribe corticotrophin or any of the corticosteroids by mouth or by injection. Such treatment is tempo-

rarily effective, and knowing this, the physician experiences great temptation to alleviate the distressing itching by such a direct and almost specific remedy. However, the dangers are too great. The usual course when ACTH, cortisone, or allied drugs are given is to achieve great improvement subjectively and objectively. The medication is then cut down or stopped. Recurrence is prompt, the symptoms then often being more severe than previously. The drug again is administered, but this time it may require a little larger dose or the medicine may have to be continued longer than before. When the treatment is terminated, a prompt flare again occurs. The patient now demands the treatment that gives him relief and if denied often travels from one doctor to another. After a few weeks or months the inevitable toxic reactions develop with electrolyte imbalance and retention of fluids, moon facies, and buffalo hump. Also, more seriously, the chance to develop diabetes, hypertension, collapsed vertebrae, and other unpleasant and serious disturbances occur.

It is better to employ less dramatic measures. Fortunately, there is usually every hope that a conservative course will prove satisfactory. There should be made a serious attempt to evaluate the life pattern and the degree of stress to which the patient is subject. Sometimes these patients gain by a psychiatric consultation. The prognosis as to recurrence is frequently dependent on what can be done. An untenable or unpromising domestic situation would not provide the most certain background for cure, provided the patient was scratching and rubbing his skin as an emotional outlet. Often a sympathetic attitude and a willingness to be a confidant will pay rich dividends.

The antihistamine drugs taken by mouth are usually advisable as they have an antipruritic effect. To obtain best results, the physician should prescribe one without sedative effect to be taken after meals and a more sedative acting one to be taken at bedtime. Minor reactions such as dry mouth should not be an indication to stop the medication. Occasionally diarrhea, a depression, or some other side effect will dictate a change to another antihistamine drug. Small doses of the so-called tranquilizing drugs may be added to the scheme. Hydrocortisone ointment, cream, and lotion are often prompt and efficient but are practical to use, because of expense, only in the more localized forms. Such preparations may be prescribed in the widespread rashes to use only for an emergency. The next best topical medicament is tar. This is usually well tolerated. A soluble tar beginning with 1 per cent in zinc oxide ointment is the usual prescription. This can be increased in strength to 5 per cent or more. If there is evidence of contact dermatitis, a soothing barrier cream should be employed. If pustules develop, an antibiotic ointment containing neomycin is often useful. With fever some systemic medication may be required, preferably a tetracycline drug or a buffered sulfa preparation. Wet salt, boric compresses are always in order if the affected skin is irritated.

SEBORRHEIC DERMATITIS

Seborrheic dermatitis often is confined to the scalp, but also may involve other areas, such as the ear canals, the skin behind the ears, the area over the sternum, the axillary folds, and the inguinal region, or in rare instances be widely distributed. The degree of severity also varies considerably. The condition may be chronic, scaly, greasy eruption with minimal evidence of inflammation or be an acute inflammatory disorder, often complicated by pyogenic infection.

The treatment, therefore, must be tailored to fit the problem. In the vast majority of cases, topical therapy is desirable. Provision for cleansing of the involved skin with a nonirritating detergent at regular and frequent intervals is the first requisite. If there is acute inflammation present, one should defer active antiseborrheic measures and use therapy as mentioned for contact dermatitis. For the usual and noncomplicated case, it is customary to prescribe daily applications of either mercury or sulfur, the concentration depending on the degree of inflammation present. For instance, ammoniated mercury ointment might be prescribed in the weak strength of 2 per cent when the disorder is mildly inflammatory or in a chronic disorder be applied as strong as 6 or even 10 per cent. Usually for the latter strength, the scalp is involved and the patient should understand that the medicament must be used with caution and usually only on a limited area. Salicylic acid, 2 to 3 per cent, is often combined with mercury or with sulfur in a cream for local application. Newer remedies, such as Selsun shampoo, Fostex soap and cream, and Veredan, are achieving considerable popularity and have proven to be effective agents. Due caution in all instances must be taken that the patient is not sensitive to these drugs; it is best to instruct the patient to apply the medicine to a test site and to use sparingly at first.

If secondary infection is present, this should be given priority and the antiseborrheic remedies reserved for later use.

A low fat, high vitamin diet is indicated. Vitamin B complex is often prescribed although the virtues of this are problematical.

Sometimes nervous tension or exhaustion seems to be an important contributory cause. In such cases there should be efforts directed toward changing the habits of the patient, and sometimes mild sedation is indicated.

CUTANEOUS MALIGNANCY

Clinical acumen to be aware of the features of skin cancer is of great importance. There are three main types. Basal cell epithelioma is usually a slowly developing tumor which occurs frequently on the face and is evidenced first by a skin colored elevation with pearly border and after a few months by a depressed center and occasionally by ulceration. There are usually dilated capillaries over the surface. Metastasis is almost never observed. The prickle cell type of tumor grows rapidly and after a few weeks will be infiltrated on palpation. It may be referred to as an iceberg tumor since a large percentage of its bulk is due to a mushroom-like spread below the surface of the skin. Ulceration occurs if the tumor is neglected. These lesions may occur anywhere, but when present on the tongue or lower lip are particularly dangerous. This lesion may occur as a sequel to a precancerous disorder such as leukoplakia of the tongue or lips. Metastasis is usually to the regional lymph nodes.

The third type of cancer, known as melanoma or melanocarcinoma, is the most lethal, but fortunately is also the least common. The lesion may appear spontaneously or be transformed from a junction nevus, usually considered a threatening type of mole. While rarely these lesions may be skin colored, the vast majority are black or darkly tinted. They are always smooth surfaced and tend to increase in size. At first macular, they become palpable and surface irregularities appear. Finally ulceration occurs. By this time, regional lymph nodes may be enlarged, representing a metastatic spread. If this occurs, the lesion has been neglected sufficiently so that chance of cure by any method is unlikely. An uncommon and unfortunately often misdiagnosed type arises from the nail bed (melanotic whitlow). The main point to stress is the necessity for prompt diagnosis.

The therapy of these cutaneous malignancies is usually best determined by a dermatologist, who should decide which of the available modalities is appropriate. For basal cell epithelioma, the roentgen rays, radium, electrosurgery, chemosurgery, and surgical excision are all useful for certain locations, in patients of different ages, or for other clinical reasons. It is usually unnecessary here to resort to a plastic operation.

For prickle cell epithelioma, there is considerable difference of opinion based on experience with roentgen rays and radium and on a surgical procedure. Treatment must be prompt, vigorous, and thorough.

For melanocarcinoma, a wide and deep local excision usually accomplishes all that is possible. Amputation of an extremity is difficult to justify. Dissection of regional lymph nodes does not appear to add to life expectancy.

SUMMARY

A survey of the treatment of some of the common dermatoses is presented. The desirability of an accurate diagnosis, supported when indicated by appropriate laboratory procedures, and good judgment in selecting therapy are stressed. Prompt treatment of malignant lesions is particularly important.

♦ Dr. Lewis, 66 East 66th Street, New York.

Gamma Globulin In the Treatment Of Herpes Zoster

WALKER A. LEA, JR., M.D.

Temple, Texas

and WILLIAM B. TAYLOR, M.D.

Ann Arbor, Michigan

THE use of gamma globulin in the treatment of herpes zoster may be criticized on the grounds that an antibody cannot cross cellular membranes. It must neutralize a virus before it enters the cell. One would suspect, therefore, that little could be expected from the use of gamma globulin in clinically active herpes zoster.

Weintraub,[5] however, has reported the beneficial effects of gamma globulin in the treatment of herpes zoster. Similar results also have been reported by Rodarte and Williams[4] and Gros.[3] Contrary to these reports, Epstein and Allington[2] have reported that gamma globulin is worthless in the treatment of herpes zoster.

REVIEW OF CASES

Six males and 11 females with herpes zoster, ranging in age from 3 years to 75 years, were treated with gamma globulin. Regional adenopathy, radicular pain, and herpetic skin lesions were present in each case.

Intramuscular gamma globulin was given to each patient. The total dose was empirical and ranged from a minimum of 20 cc. to a maximum of 60 cc. Two children and 2 women were given 5 cc. injections daily for 4 days. With the exception of these

4 cases, the initial injection was 10 cc. Thereafter, the patient received 10 cc. injections daily, half the dose in each buttock, until the total amount had been given.

The length of time required for involutional changes to occur in existing lesions and the abatement of pain were used to evaluate the results of treatment.

Dr. Walker A. Lea, Jr., now of Scott and White Clinic, Temple, and his co-author reported this study from the Departments of Dermatology at St. Joseph Mercy Hospital and University Hospital, Ann Arbor.

Seventeen patients, 3 to 75 years of age, with herpes zoster were treated with injections of gamma globulin, mostly 10 cc. per day, to a total of 20 to 60 cc. Good results based on involutional changes in lesions and abatement of pain occurred in approximately two-thirds, usually within 24 to 48 hours. Further investigation seems warranted.

Involutional changes in existing lesions were noted in 4 patients within 24 hours following the initial injection. Ten patients exhibited similar changes within 48 hours. Two patients showed no change for 72 hours.

Abatement of pain was experienced by 10 patients within 24 hours. Three other patients noted relief in 48 hours. The 3 patients who received no relief and developed postherpetic neuralgia received large amounts of gamma globulin because they had not experienced some relief early in the course of treatment. One of these patients had had the disease for at least 7 days prior to the beginning of treatment. Patient 12 (table 1) already had developed hemorrhagic lesions with some ulcerated areas when therapy was begun.

COMMENT

Eleven patients showed definite improvement following the institution of therapy (table 1). Patients 8, 13, and 15 showed extension of skin lesions under active treatment. However, in each of these cases, improvement began no later than the third treatment day, and no complications developed.

Since 3 of the patients developed postherpetic neuralgia, the results of their treatment was considered poor. Two of these patients, 5 and 12, showed marked involutional changes in their lesions after the second treatment day. In patient 14 therapy was instituted early, and he was given an adequate amount of gamma globulin. Despite this, he developed hemorrhagic lesions, necrotic sloughs, and later postherpetic neuralgia. He was considered a therapeutic failure.

The clinical impression gained from this study was that the best results were obtained when therapy was instituted not more than 48 hours following the onset of the disease. It appears that the total dose of gamma globulin is not of paramount importance. Two adults showed excellent response to a total dose of 20 cc. In cases 5 and 12 in which 50 and 60 cc. respectively were given, severe postherpetic neuralgia was encountered. It was found that if a total dose of 40 cc. was not effective, no further benefit could be obtained by continuing the injections.

TABLE 1.—*Results of Treatment of Herpes Zoster with Gamma Globulin in 17 Patients.*

Case	Age (Yr.)	Sex	Involved Site	Duration of Skin Lesions Before Treatment (Days)	Time Required for: Relief of Pain (Hr.)	Time Required for: Resolution of Lesions (Hr.)	Total Dose of Gamma Globulin (cc.)
1	4	F	Thoracic	2	24	48	20
2	51	F	Ophthalmic	3	48	24	40
3	64	F	Lumbosacral	1	24	24	30
4	32	F	Trigeminal	2	48	24	40
5	59	M	Thoracic	5	Postherpetic neuralgia	48	60
6	55	F	Pudendal	2	24	48	40
7	58	F	Superior temporal	2	24	48	20
8	55	F	Ophthalmic	2	24	48	40
9	50	F	Ophthalmic	3	24	48	20
10	72	M	Ophthalmic	5	24	48	40
11	3	M	Thoracic	3	48	48	20
12	62	M	Thoracic	8	Postherpetic neuralgia	48	50
13	58	F	Generalized	2	24	72	50
14	64	M	Lower cervical, upper thoracic	3	Postherpetic neuralgia	Necrotic sloughs	60
15	30	F	Thoracic	3	72	72	40
16	75	F	Thoracic	3	24	48	40
17	29	M	Thoracic	2	24	24	40

Since no control series was done in this study, a survey of the natural history of herpes zoster done by Burgoon, Burgoon, and Baldridge[1] was used for comparative study. These investigators found that in a group of 163 patients, 54.6 per cent were clear of all symptoms in 14 days regardless of the therapy employed. In the series reported here about the same proportion of patients receiving gamma globulin were clear of all symptoms by the eighth day. These results were encouraging.

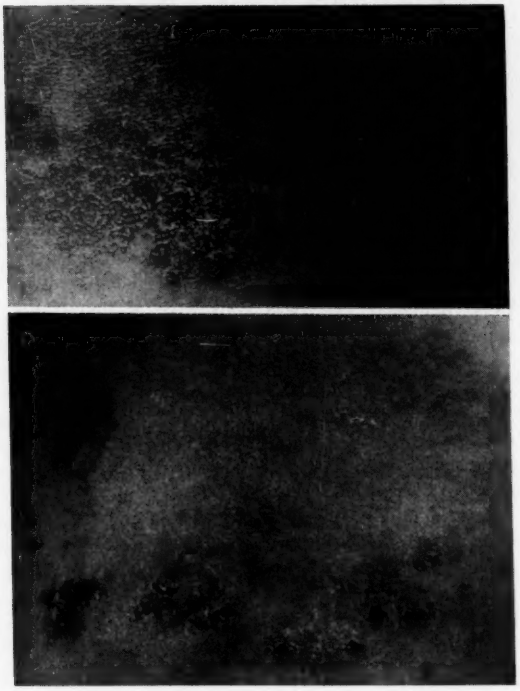

Fig. 1. Above. Patient 1 at the time administration of gamma globulin was begun.
Below. The same patient 24 hours after initial injection of gamma globulin.

The comparison of this small series with that of Burgoon and others[1] on the natural history of herpes zoster indicates that gamma globulin in adequate doses, given early in the disease is worth while. The fact that it was not always effective may be related to the fact that the gamma globulin used in the various subjects was not identical. Several different lot numbers were used. Since antibody quantities vary in each lot it is conceivable that these variations influenced the results.

Attempting to assess the effectiveness of a therapeutic agent in a disease as variable as herpes zoster on the basis of clinical investigation alone is very difficult. Furthermore, by instituting therapy within 72 hours following the onset of the cutaneous eruption it is impossible to know what the course of the disease might have been. It seems more than mere coincidence, however, that good results were obtained in approximately two-thirds of the patients treated. The sudden abatement of pain and beginning resolution of existing lesions within 24 to 48 hours following the initiation of therapy was at times dramatic and cannot be dismissed lightly.

SUMMARY

Seventeen cases of herpes zoster treated with gamma globulin are presented. The results of treatment were encouraging enough to warrant further use and investigation.

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Dr. Lea, Department of Dermatology, Scott and White Clinic, Temple.

Dr. Taylor, Department of Dermatology, University Hospital, Ann Arbor, Mich.

Muscular Dystrophy Work Aided by Liberty Foundation

The National Muscular Dystrophy Research Foundation of Liberty has paid the second installment, a contribution of $7,500, of a $250,000 commitment for muscular dystrophy research at the University of Texas Medical Branch. According to Mason Guest, Ph.D., chairman of the Department of Physiology, $17,500 is the total contributed so far for this research.

The contribution has made it possible to study victims of the disease. In the muscular dystrophy clinic, patients are advised as to diet and given muscle tests. This information is evaluated into a study of such factors as heredity and drug usage. The basic research is being done in the Department of Physiology.

Infantile Paralysis Fellowships

Applications to the National Foundation for Infantile Paralysis for postdoctoral fellowships in research and academic medicine or in the clinical fields of rehabilitation, orthopedics, and preventive medicine are to be filed by September 1, December 1, or March 1. The deadlines for fellowship in the medical associate fields of physical therapy teaching and occupational therapy teaching are also these dates.

Those interested in further information may write to the Division of Professional Education, National Foundation for Infantile Paralysis, 301 East 42nd Street, New York 17.

Role and Responsibilities In School Health

AUSTIN E. HILL, M.D.

Houston, Texas

IN AMERICA the family is the unit of our citizenry which is responsible to a large measure for the development of our way of life, culture, sense of loyalty, and well being; and therein lie the roots of our pursuit for happiness. The family, likewise, is responsible not only for the social development and the religious and moral structure of our children, but also for their mental attitudes, physical care, and health as well. The care and treatment our children receive at home is reflected by their actions and speech elsewhere. In many instances, families are unable or unwilling to meet their responsibilities and society may have to take action at times.

Dr. Austin E. Hill, director of health for the Houston Public Schools, presented this paper at the Conference on Physicians and Schools sponsored by the Texas Medical Association in Austin on January 8, 1958.

The school is concerned with the mental and physical health of the child insofar as it affects his learning. It should be the responsibility of the school to see that children have a physical examination before entering school, that a school physician is always available, and that related organizations, such as the Public Health Department, cooperate with the school.

SCHOOL AND HEALTH DEPARTMENTS

The school's primary responsibility is for the education of our children, including health education, yet the schools must be concerned with both the mental and physical health of the child insofar as it may affect his learning. A good health appraisal of a child when he enters school for the first time should be of prime importance not only to the classroom teacher, nurse, and principal, but also to other children in his school as well. If a child has a communicable disease or if his actions or reactions affect adversely his own learning or the learning of others in his classroom, it immediately becomes the concern of the school personnel. If a child is unable to learn, the school's responsibility may be to give vision and hearing tests or to go so far as to request a medical examination, a neurological examination, and a psychological examination. The child may need to be placed in a special class.

Medical care for the school child, except for emergency first aid in case of injury or sudden illness, is not within the province of the responsibilities of the schools. The schools, however, should assume the role of an institution for better health education to stimulate more interest in the health of children by the family.

The local health officer also may be the school physician, and in many instances in Texas school health is his responsibility inherent with his general duties. It may be the duty of the health officer to assume the responsibility of protecting children from such hazards as communicable disease and accident. He may have to enforce the law with regard to smallpox vaccination and diphtheria inoculation because in some cities these laws are city ordinances. There is no state law in Texas requiring any kind of immunization against diseases to enter school.

Should there be a school physician, he could assume nearly all of the school health duties. Some of them, however, are the responsibility of the health officer by law, and no one else can assume these obligations except his deputy. Some of the duties which might be assigned to the school health physician are outlined in table 1.

PRIVATE PRACTITIONERS AND DENTISTS

Before a child enters school for the first time, he should have a physical examination by his family physician. It should include smallpox vaccination and inoculation against diphtheria, pertussis, and tetanus. He also should have an examination and necessary defects corrected by his family dentist.

If a child has not had an examination by his physician and dentist before entering school, it should be done within a reasonable time thereafter. Pertinent health data obtained by these examinations should be made available for recording on permanent cumulative health records. The frequency of these examinations should be determined locally. Four examinations during a child's 12 years of schooling are considered minimum.

The private physician or dentist is primarily concerned with the individual child, but he should stand ready to serve as a consultant and resource person to parents, school, and community.

TABLE 1.—*Some of the Duties of a School Health Physician.*

A. Over-all school health program.
   1. To assist in the selection of qualified personnel and to direct in-service training as is needed by the members of the staff.
   2. To assist the administrator in coordinating the medical service with other phases of the school health program.
   3. To direct the program for health service to be rendered in the schools.
   4. To assist the administrator in exercising supervisory control over the school environment and in helping to recognize and bring about the correction of unfavorable conditions.
   5. To acquaint the administrator with the facilities required for conducting an effectual health program, including proper equipment.
   6. To direct the program for controlling communicable diseases.
   7. To assist in the development of adequate cumulative records incorporating features which keep them alive and containing physical, mental, and emotional health data contributed by physicians, dentists, teachers, nurses, and parents.

B. School health service.
   1. To assist the administrator in planning the health appraisal program and to perform the professional duties connected with it.
   2. To assist in developing a plan whereby the school administrator, teachers, parents, private physicians, nurses, community agencies, and other groups understand and share in the responsibility for the follow-up program.
   3. To give skilled and authoritative leadership in helping to provide facilities for safe and healthful school living and in making sure that they are used properly by school personnel and children.

C. Home and community relationships.
   1. To help the school administrator and other school personnel to understand the health problems of the community and the relationships which they bear to the school health program.
   2. To establish and promote cooperation with organized medicine and to maintain good working relationships with practicing physicians, dentists, and official and voluntary health agencies in the community in the fields of medicine and public health.
   3. To help to inform the public regarding the nature and progress of the school health program.
   4. To help the administrator interpret laws affecting school health procedures and to cooperate in securing desirable changes.

D. Health Education.
   1. To serve as over-all director of health education.
   2. To work continuously with all school personnel to make all three major divisions of the school health program—health service, provision of a safe and healthful environment, and health education—contribute to the health of the child.
   3. To serve as a consultant to the school administrator, curriculum committee, or individual teachers on possible shifts of emphasis in health curriculum materials when scientific developments indicate.
   4. To act as a consultant to the administrator on the immediate dissemination of information to the teachers and parents in the case of epidemic or other emergency.

SCHOOL HEALTH COUNCIL

Local medical and dental societies, public health departments, parent-teacher associations, and other related agencies in the community must work together cooperatively with school personnel. Plans which will greatly enhance the efforts of parents, physicians, and schools to meet their responsibilities effectively. This can be done best through an organized health council which should be representative of the community and the schools. The superintendent must approve it and must be a member in order for it to be effective.

COOPERATIVE RELATIONSHIPS

Every school system should have a physician on whom it could depend for service, advice, and counsel. In large school systems there is usually a full time physician, in smaller systems the physician is on part time basis, and in rural schools the county health officer serves as school physician.

It is well for local medical and dental societies to appoint school health committees to work with the local health department and the schools. Such committees can formulate rules and regulations with regard to communicable disease control and develop sound medical and dental policies for school health practices which are applicable in the local situation.

A health inventory or health history, including data on recent medical and dental examinations, should be obtained from parents and should be made available to the schools. Also, classroom teachers and school nurses should continuously observe school children, and all who exhibit symptoms should be referred to a physician or dentist as the needs might direct.

Dr. Hill, Houston, Public Schools, 1300 Capitol Avenue, Houston 2.

Children's Eating Habits Reported by Dallas Doctors

Television, air conditioning, and eating between meals have combined to produce a new hot weather syndrome among children, two Dallas pediatricians reported to the American Medical Association Council on Foods and Nutrition.

Drs. Floyd A. Norman and Edward L. Pratt showed that the new syndrome is characterized by the "pale, flabby, tired child who has gained excessive weight during the warm weather because he has stayed in an air-conditioned house watching television most of his waking hours and has indulged in frequent between-meal snacks that have spoiled his appetite for well-balanced meals."

The authors, who are affiliated with the Department of Pediatrics, University of Texas Southwestern Medical School, the Children's Medical Center, and Parkland Memorial Hospital in Dallas, pointed out that hot weather imposes no special dietary requirements for children and that vigorous outdoor activity should be continued or developed.

CASE REPORTS

Toxoplasmosis In an Adult

ARTHUR B. TASHNEK, M.D.

Houston, Texas

THIS paper presents a case of toxoplasmosis in an adult with an unusual reaction to Daraprim.* Numerous papers have appeared in recent years in regard to this infection, most articles having dealt with its occurrence in infants. Recent papers have shown, however, that this disease is not uncommon in adults;[2, 4] one would appreciate this from the paper written by Weinman,[8] who has shown that the disease is prevalent in animals close to man. A review of the articles previously published about toxoplasmosis in adults was summarized by Cassady and others[2] and Brown.[1] The causative agent of toxoplasmosis is a protozoan which was discovered

Dr. Arthur B. Tashnek is in the practice of internal medicine in Houston.

Toxoplasmosis of a generalized type in an adult is reported. In addition to low grade fever, an enlarged liver, and palpable lymph nodes, the 59 year old woman evidenced an iridocyclitis of both eyes. Treated with Daraprim and sulfadiazine, she had a reaction of ulcerative stomatitis which responded promptly to vitamin B_{12} and folic acid.

by Nicolle and Manceaux in 1908. It was Sabin[5] who showed in 1939 that this parasite would produce human infections. Woods[11] and Wilder[10] first stimulated the recognition of this disease as a cause of uveitis, and Ryan[4] reported a comprehensive study of toxoplasmosis in 39 patients.

**Daraprim (pyrimethamine), courtesy of Burroughs Wellcome Co. Toxoplasmin Skin Test courtesy of Eli Lilly and Company.*

The forms of postnatal infections are two:

1. Severe typhus-like or richettsiosis-like form of remittent fever, a maculopapular rash, dry cough, arthralgia, myocarditis, lymphadenopathy, pneumonitis, headache, encephalitis, diarrhea, and conjunctivitis.[3, 5]

2. Milder illness with lymphadenopathy of painless character, lassitude, some temperature elevation, nonspecific catarrhal symptoms, eosinophilia, lymphocytosis with some atypical forms, and a mild hemolytic anemia.[1, 7]

The following report is of a patient whose illness falls into the second group.

CASE REPORT

A 59 year old housewife has been seen regularly since 1948, and except for minor infections and allergy was in good health until March, 1955. When seen on March 21, 1955, the patient complained of pain in her right eye and "flickering" of vision for 3 weeks. The only other symptoms which could be obtained were regurgitation and bouts of diarrhea, without blood or mucus, lasting about 1 to 2 days, and passage of four to five stools per day. There was a vague history of arthralgia. The patient lives in a rural area and was frequently around animals, particularly poultry.

Physical examination revealed an iridocyclitis of both eyes with vitreous opacities more marked in the right eye. There were small, firm, freely movable, nontender lymph nodes present in both axillae. The liver was palpable 3 to 4 cm. below the right costal margin on deep inspiration and was tender, firm, and smooth. No spleen or other masses were felt. The temperature varied from 99 to 100 F. The rest of the examination was essentially normal.

Beginning March 30, the patient was given oxytetracycline 250 mg. every 6 hours for 1 week. Administration of hydrocortisone 80 mg. per day also was begun. After 1 week of symptomatic care the regurgitation cleared up. On April 30, the hydrocortisone was discontinued at which time there was little if any noticeable improvement. On May 8 the patient developed a thrombophlebitis of the left calf, and she continued to have bouts of diarrhea. There was a weight loss of approximately 10 pounds in the next 3 months. The liver remained tender and palpable and the eyes grew steadily worse presenting large mutton-fat type keratic precipitates as well as vitreous cellular opacities dense enough to interfere with fundus studies. Vision was reduced in the right eye to 20/200 and in the left eye to 20/50. There was no change in the lymphadenopathy. On May 30, the patient was admitted to a local hospital for further studies. While in the hospital she received intravenous typhoid vaccine 10 times but failed to improve. Skin tests revealed a 2 plus reaction to first strength purified protein derivative (tuberculin), a 2 plus reaction to histoplasmin in 1:100 dilution and a negative reaction to blastomycin and coccidioidomycin.

On June 20, the patient was started on a regimen of isoniazid 300 mg. per day on the advice of a consultant. About July 18 there developed an urticarial rash and angioneurotic edema as well as five to eight formed stools a day, and it was decided to discontinue isoniazid and start streptomycin 1 Gm. twice a week and para-aminosalicylic acid 16 Gm. per day. There was no improvement. On August 10, a methylene blue dye test was positive at 1:256 dilution. On August 15, a Toxoplasma skin test was 4 plus in 48 hours and the control negative. The diarrhea continued intermittently as a result of the infection. A Kveim

test for sarcoidosis was negative. A lymph node removed from the left axilla showed hyperplasia and negative cultures for bacteria and fungus. No live tissue cultures were done. Arthralgia developed in the right sacroiliac and ankle joints. Para-aminosalicylic acid and streptomycin were stopped on November 12 because of excessive bleeding at the time hypodermic injections were given, as a result of hypoprothrombinemia from para-aminosalicylic acid. This cleared up with vitamin K injections after the drugs were stopped.

In December, 1955, this patient was seen by Dr. Allan C. Woods, professor emeritus of ophthalmology, Johns Hopkins University School of Medicine, who thought that the findings were consistent with the diagnosis of toxoplasmosis.

Administration of Daraprim and sulfadiazine was begun on December 31, with the dosage of 25 mg. of the former and 2 Gm. of the latter per day. Vision was limited to one finger counting in the right eye and 20/200 in the left eye. Ulcerations in the mouth and on the tongue evident by January 4, 1956, made it necessary to give large doses of Vitamin B_{12} and folic acid during the entire course of Daraprim. These ulcers varied from .5 to 1 cm. in size and were shallow and multiple, covering buccal mucosa and tongue; they appeared to have a granulomatous base and were tender. There was no surrounding enduration, and the edges were smooth. The ulcers promptly disappeared with the therapy outlined. By March 8, the patient had improved. The liver was less tender and smaller, being palpable only one fingerbreadth. The cellular deposits on the posterior surface of the cornea and in the vitreous had decreased in number and were pigmented. New precipitates were not seen. When the patient's eyes were checked by the ophthalmologist on April 1, he thought that activity had almost ceased. Daraprim was reduced to 12.5 mg. per day, and all drugs were stopped on May 21. However, the patient's eyes failed to improve, the old precipitates persisting, and Metimyd† eye drops were started along with prednisone given orally in doses of 40 mg. per day. The papular rash which had developed on the right elbow during the preceding month began to clear. By June 18 the prednisone had to be stopped gradually because of Cushing-like symptoms. At the time of the last examination in July, 1957, the physical examination revealed considerable clearing of the visual media with resolution of the precipitates and the vitreous opacities. However, cataracta complicata was present and limited vision to 20/100 in each eye. The liver could be felt, and one small node was present in the left axilla. The sedimentation rate (Westergren), which had been elevated to 52 mm. per hour, dropped to 15 mm. per hour.

Numerous urinalyses during the course of illness revealed occasional white blood cells and rare red blood cells. Blood studies revealed hemoglobin of 12 to 14 Gm. per 100 cc., red blood cells from 4,000,000 to 4,800,000 per cubic millimeter, white blood cells from 5,000 to 9,000 with normal differential, normal platelet count, negative serologic tests, normal glucose tolerance, negative lupus erythematosus preparation, normal serum proteins, bromsulphalein test 3.6 per cent retention in 30 minutes, and thymol turbidity 5.4 units. Cephalin flocculation results varied from 4 plus in 48 hours at onset of illness in June, 1955, to 2 plus in 48 hours in December, 1955. Agglutination studies were normal as were blood smears and electrophoresis of serum proteins. Stool examination was negative. Methylene blue dye test on August 10, 1955, was positive at 1:256 dilution. Repeated tests on December 10 before Daraprim therapy and on April 24, 1956, after therapy remained positive at 1:256. Lymph node biopsy on two occasions revealed only hyperplasia. The Kveim test for sarcoidosis was negative.

Repeated chest roentgenograms revealed prominence of the left hilar region due to lymph nodes. Gallbladder and gastrointestinal series were normal. Lumbar spine, skull, and hand films were normal. Bacterial hypersensitivity studies were negative.

†*Metimyd (Schering).*

DISCUSSION

Sabin[6] stated that the primary infection with toxoplasmosis is denoted by a rapid rise in the dye test antibody to levels between 1:256 and 1:32,000 dilutions. The results of the test for complement fixing antibody are negative during the first weeks after the infection and then become positive at 1:16 to 1:256 dilutions. The complement fixing antibody ultimately disappears, but the dye test antibody titer falls slowly and persists for life. Even the lowest titers indicate past infection with Toxoplasma. Ryan[4] said that 80 per cent of his patients with positive Toxoplasma dye tests showed positive skin reactions to toxoplasmin antigen. No case with a positive skin test failed to give a positive dye test.

The patient reported here represents one in whom the dye test antibody titer rose to a positive level and remained positive up to the time treatment was discontinued. No drop followed the completion of Daraprim and sulfonamide therapy.

It has been shown that this infection is spread in the feces and respiratory secretions by domestic animals such as birds, dogs, cats, pigeons, rabbits, and cattle. Weinman[8] stated that pork is the probable mode of infection since pigs become infected by eating infected rodents and there is strong evidence that pigs in nature are Toxoplasma carriers. The Toxoplasma organisms are viable when the pork arrives in the kitchen and survives the attack of gastric digestion for a period equal to the normal stay in the stomach. It was his opinion that those people eating poorly cooked pork are more likely to have serums with high titers for Toxoplasma. This was found to be true. This finding is interesting and points to a possible mode of infection; however, the patient presented in this case report did not eat poorly cooked pork.

It has been shown that chorioretinitis in adults may represent an allergic inflammatory response to ruptured pseudocysts that have been dormant for years. Toxoplasma have been recovered and identified from enucleated eyes of patients with granulomatous uveitis. Since this patient had an elevated dye titer, a chorioretinitis, an enlarged liver, and palpable lymph nodes, it is believed that she had an active generalized infection. The greatest contro-

versy lies in the ability to culture this organism, and in this case no organisms were found in the culture of the lymph node removed. Upon further investigation in efforts to culture Toxoplasma, I found a plasmodium requires a live culture, necessitating the use of live cells or living tissue. This type of culture was not performed in our case. It is interesting to note that this patient, if seen without the eye infection, would have presented a difficult diagnostic problem. (Note the low grade fever, the enlarged liver, and palpable lymph nodes with no other specific findings). A presumptive etiological diagnosis of toxoplasmic uveitis can be arrived at by the clinical appearance, the absence of more convincing evidence or other etiological possibilities, the presence of a positive skin test to toxoplasmin, and a positive dye test. About 25 per cent of the cases with uveitis have been treated for tuberculosis, and when therapy failed, the correct diagnosis was made. It is interesting that many patients in Ryan's paper[4] were treated with tuberculous antimicrobial therapy. Many patients referred to his group had been given rather thorough work-ups for tuberculosis since this is probably the second most common presumptive diagnosis to be made in this group of patients. One should be aware of the possibility of toxoplasmosis and attempt to obtain dye titers on patients where the diagnosis has not been established by the usual means. The tests on my patient were done through the courtesy of the United States Public Health Service, Chamblee, Ga.

The side reactions of Daraprim include intermittent nausea, anorexia, weight loss, and disturbances of the blood cells. In Ryan's paper[4] there is no mention of a rash or of ulcerations in the mouth. Therefore, I would like to add to the list of reactions ulcerations of the mouth due to folic acid deficiency, Daraprim being a folic acid antagonist. The deficiency was combated by the use of vitamin B_{12} and folic acid and did not necessitate discontinuing the drug. There is a thorough discussion of the therapy in this disease by Wittingfeld,[9] who used Daraprim and Triple-Sulfa in the treatment of an acute infection in a laboratory technician.

SUMMARY

This report is of a case of toxoplasmosis of a generalized type in an adult including an eye infection treated with Daraprim and sulfadiazine with an unusual reaction of ulcerative stomatitis which responded promptly to vitamin B_{12} and folic acid.

I wish to express appreciation to Dr. George Robert Kolodny, ophthalmologist, for his help in this case.

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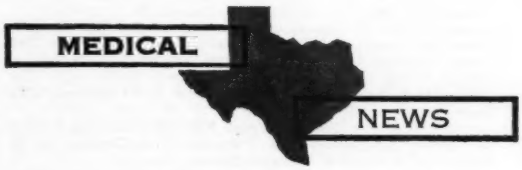
Dr. Tashnek, 1411 Medical Towers, Houston 25.



★ Coming Meetings

Texas Medical Association, San Antonio, April 18-21, 1959 (Executive Council, Sept. 7, 1959). Dr. Howard O. Smith, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Exec. Secy.

American Medical Association, Clinical Meeting, Minneapolis, Dec. 2-5, 1958. Dr. Gunnar Gundersen, La Crosse, Wis., Pres.; Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Exec. Vice-Pres.

Current Meetings

AUGUST

American Congress of Physical Medicine and Rehabilitation, Philadelphia, Aug. 24-29, 1958. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago, Executive Secretary.

American Hospital Association, Chicago, Aug. 18-21, 1958. Mr. Tol Terrell, San Angelo, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago 10, Executive Director.

SEPTEMBER

Tri-State Medical Assembly, Shreveport, Sept. 18, 1958. Dr. James Gatline, Camden, Ark., Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

Texas Academy of General Practice, San Antonio, Sept. 22-24, 1958. Dr. G. W. Cleveland, Austin, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

National and Regional

American Academy of Allergy, Chicago, Feb. 9-11, 1959. Dr. Max Samter, Chicago, Pres.; Dr. Bram Rose, Royal Victoria Hospital, Montreal, Canada, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 6-11, 1958. Dr. James R. Webster, Chicago, Pres.; Dr. R. R. Kierland, Mayo Clinic, Rochester, Minn., Secy.

American Academy of General Practice, San Francisco, April 6-9, 1959. Dr. Holland T. Jackson, Fort Worth, Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-17, 1958. Dr. LeRoy A. Schall, Boston, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 20-23, 1959. Dr. Stewart H. Clifford, Brookline, Mass., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Los Angeles, April 21-23, 1959. Dr. Michael E. DeBakey, Houston, Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Secy.

American Association of Genito-Urinary Surgeons. Dr. John A. Taylor, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd St., Cleveland 6, Secy.

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 4-6, 1958. Dr. William F. Mengert, Chicago, Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 29-31, 1958. Dr. L. T. Coggeshall, Chicago, Pres.; M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, San Francisco, March 15-20, 1959. Dr. Merle W. Moore, Portland, Ore., Pres.; Dr. M. Coleman Harris, 450 Sutter St., San Francisco, Secy.

American College of Chest Physicians, Atlantic City, June 3-7, 1959. Dr. Donald R. McKay, Buffalo, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, New Orleans, Oct. 19-25, 1958. Dr. C. Wilmer Wirts, Philadelphia, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Obstetricians and Gynecologists. Dr. R. Glen Craig, San Francisco, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American College of Physicians, Chicago, April 20-24, 1959. Dr. Dwight L. Wilbur, San Francisco, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 6-7, 1959. Dr. Vincent W. Archer, Charlottesville, Va., Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons, Chicago, Oct. 6-10, 1958. Dr. William L. Estes, Bethlehem, Pa., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Dermatological Association, Atlantic City, June 1-4, 1959. Dr. J. Lamar Callaway, Durham, N. C., Pres.; Dr. Wiley M. Sams, 308 Ingraham Bldg., Miami, Secy.

American Gastro-Enterological Association. Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Hot Springs, Va., May 25-27, 1959. Dr. Lewis C. Scheffey, Philadelphia, Pres.; Dr. A. A. Marchetti, George Washington University Hospital, Washington 7, D. C., Secy.

American Heart Association, San Francisco, Oct. 24-28, 1958. Dr. Robert W. Wilkins, New York, Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Laryngological, Rhinological, and Otological Society, Hot Springs, Va., March 10-12, 1959. Dr. G. D. Hoople, Syracuse, N. Y., Pres.; Dr. C. S. Nash, 708 Medical Arts Bldg., Rochester, N. Y., Secy.

American Neurological Association, Atlantic City, June 15-17, 1959. Dr. Bernard J. Alpers, Philadelphia, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 28-30, 1959. Dr. Derrick Vail, Chicago, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association. Dr. George O. Eaton, Baltimore, Pres.; Dr. Harold A. Sofield, 715 Lake St., Oak Park, Ill., Secy.

American Pediatric Society, Buck Hill Falls, Pa., May 6-8, 1959. Dr. Joseph Stokes, Jr., Philadelphia, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Atlantic City, June 15-18, 1959. Dr. Karl Zimmerman, Pittsburgh, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, Philadelphia, April 26-May 1, 1959. Dr. Francis J. Gerty, Chicago, Pres.; Dr. C. H. Hardin Branch, 156 Westminister Ave., Salt Lake City, Secy.

American Public Health Association, St. Louis, Oct. 27-31, 1958. Roy J. Morton, Oak Ridge, Tenn., Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Pittsburgh, Pa., Oct. 19-24, 1958. Dr. Ralph S. Sappenfield, Miami, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Society of Clinical Pathologists, Chicago, Nov. 1-8, 1958. Dr. Harry P. Smith, New York, Pres.; Dr. Clyde G. Culberson, 1040 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, San Francisco, April 15-17, 1959. Dr. I. S. Ravdin, Philadelphia, Pres.; Dr. William Altemeier, Cincinnati General Hospital, Cincinnati 29, Secy.

American Urological Association, Atlantic City, April 20-23, 1959. Dr. Adolph Kutzmann, Los Angeles, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Interim Meeting, Chicago, Oct. 10-11, 1958. Dr. Mal Rumph, Fort Worth, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Chicago, May 24-29, 1959. Dr. Mario M. Fischer, Duluth, Minn., Pres.; Mrs. Wallace B. White, 651 Marlborough Rd., Brooklyn 30, Secy.

Radiological Society of North America, Chicago, Nov. 16-21, 1958. Dr. Leo G. Rigler, Los Angeles, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, New Orleans, Nov. 3-6, 1958. Dr. W. Kelly West, Oklahoma City, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Surgical Association, Boca Raton, Fla., Dec. 9-11, 1958. Dr. James D. Rives, New Orleans, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore 18, Secy.

Southern Psychiatric Association, Tennessee, October, 1958. Dr. Frank Luton, Nashville, Pres.; Dr. Iverson O. Brownell, Greenville, S. C., Secy.

Southwest Allergy Forum, Houston, April 26-28, 1959. Dr. Richard L. Etter, Houston, Pres.; Dr. Richard H. Jackson, 156 Hermann Professional Building, Houston, Secy.

Southwest Regional Cancer Conference, Fort Worth, Oct. 16, 1958. Dr. O. J. Wollenman, Fort Worth, Chm.; Mrs. Ira Frances Ball, 264 W. 11th, Fort Worth, Secy.

Southwestern Medical Association, Tucson, Ariz., Oct. 23-25, 1958. Dr. Louis G. Jekel, Phoenix, Pres.; Dr. Russell L. Deter, 1501 Arizona, El Paso, Secy.

Southwestern Society of Nuclear Medicine. Dr. Jack G. S. Maxfield, Dallas, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Denver, March 30-April 2, 1959. Dr. Louis M. Overton, Albuquerque, Pres.; Mary O'Leary, 813 Medical Arts Bldg., Oklahoma City, Exec. Secy.

United States-Mexico Border Public Health Association, Brownsville and Matamoros, Tamaulipas, Mexico, April, 1959. Albert O. Irigoyen, Mexico, D. F., Pres.; Dr. Jorge Román, 243 United States Court House, El Paso, Secy.

State

Private Clinics and Hospitals Association of Texas, Dallas, Dec. 14-15, 1958. Dr. Joe Shepperd, Burnet, Pres.; Mr. Henry E. Taylor, Medical Arts Building, Dallas, Executive Secy.

Texas Academy of Internal Medicine, Galveston, Dec. 6-7, 1958. Dr. A. W. Harris, Dallas, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, San Antonio, April, 1959. Dr. R. Henry Harrison, Bryan, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks, Austin, February, 1959. Dr. Louis J. Manhoff, Jr., San Antonio, Pres.; L. Ruth Guy, Ph.D., 725 Doctors Building, Temple.

Texas Association for Mental Health, Fort Worth, March 12-14, 1959. Dr. Frank Schooner, Fort Worth, Pres.; Mr. John Lane, 2410 San Antonio, Austin, Executive Director.

Texas Association of Obstetricians and Gynecologists, Fort Worth, Feb. 14, 1959. Dr. Jesson L. Stowe, El Paso, Pres.; Dr. Oran V. Prejean, 1317 N. Washington St., Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, San Antonio, April, 1959. Dr. David M. Cowgill, San Benito, Pres.; Dr. B. M. Primer, 2709 Rio Grande, Austin.

Texas Chapter, American College of Chest Physicians, San Antonio, April 19, 1959. Dr. J. O. Armstrong, Dallas, Pres.; Dr. Carlos J. Quintanilla,, Box 592, Harlingen, Secy.

Texas Club of Internists. Dr. D. D. Warren, Waco, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, San Antonio, April 20, 1959. Dr. Earl L. Loftis, Dallas, Pres.; Dr. E. N. Walsh, 1410 Pruitt St., Fort Worth 4, Secy.

Texas Diabetes Association, San Antonio, April 19, 1959. Dr. Merton Minter, San Antonio, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 4, 1958. Dr. J. Layton Cochran, San Antonio, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Geriatrics Society, San Antonio, April 20, 1959. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, San Antonio, April 19, 1959. Dr. William B. Adamson, Abilene, Pres.; Ernest T. Guy, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Houston, May 11-14, 1959. Mr. W. P. Earngey, Jr., Fort Worth, Pres.; Mr. O. Ray Hurst, 2208 Main, Dallas, Executive Director.

Texas Industrial Medical Association, San Antonio, April 19, 1959. Dr. Wendell H. Hamrick, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neurophychiatric Association, San Antonio, April 19, 1959. Dr. Samuel R. Snodgrass, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, San Antonio, April 19, 1959. Dr. Harold Beasley, Fort Worth, Pres.; Dr. James Scruggs, 2223 Austin, Waco, Secy.

Texas Orthopedic Association, San Antonio, April 20, 1959. Dr. Louis J. Levy, Fort Worth, Pres.; Dr. Margaret Watkins, 3503 Fairmount, Dallas, Secy.

Texas Pediatric Society, Fort Worth, Oct. 17-18, 1958. Dr. T. J. McElhenney, Austin, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, San Antonio, April 19, 1959. Dr. Vann S. Taylor, Dallas, Pres.; Dr. Lewis A. Leavitt, Veterans Administration Hospital, Houston, Secy.

Texas Proctologic Society, February, 1959. Dr. C. P. Hardwicke, Austin, Pres.; Dr. H. Gray Carter, 915 St. Joseph St., Dallas, Secy.

Texas Public Health Association. Dr. D. R. Reilly, San Angelo, Pres.; Mr. Wayne Garrett, City Health Department, Fort Worth, Executive Secy.

Texas Radiological Society, Dallas, Jan. 30-31, 1959. Dr. R. F. Wertz, Amarillo, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Galveston, Dec. 5, 1958. Dr. W. W. Bondurant, San Antonio, Pres.; Dr. J. Morris Horn, 3707 Gaston, Dallas, Secy.

Texas Society of Anesthesiologists, San Antonio, April 19, 1959. Dr. M. M. Rosenzweig, San Antonio, Pres.; Dr. M. T. Jenkins, Parkland Hospital, Dallas, Secy.

Texas Society of Athletic Team Physicians, San Antonio, April 18, 1959. Dr. Edward T. Smith, Houston, Pres.; Dr. Jack Brannon, 2715 Fannin, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, San Antonio, April 19, 1959. Dr. O. P. Griffin, 800 5th Avenue, Fort Worth, Pres.; Dr. A. C. Broders, Jr., Scott and White Clinic Hospital, Temple, Secy.

Texas Society of Ophthalmology and Otolaryngology, Houston, Dec. 5-6, 1958. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas Society of Pathologists, San Antonio, April 21, 1959. Dr. John H. Childers, Galveston, Pres.; Dr. Marvin H. Grossman, Box 57, Dallas, Secy.

Texas Society of Plastic Surgeons, San Antonio, April 18, 1959. Dr. Baron Hardy, Houston, Pres.; Dr. Raymond Brauer, 6615 Travis, Houston, Secy.

Texas Surgical Society, Galveston, Oct. 6-7, 1958. Dr. J. Peyton Barnes, Houston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, San Antonio, April 19, 1959. Dr. G. V. Brindley, Temple, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association, San Antonio, March 19-21, 1959. Dr. John W. Middleton, Galveston, Pres.; Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Texas Urological Society, San Antonio, January, 1959. Dr. Charles Hooks, Galveston, Pres.; Dr. Charles Hulse, 636 Moore Building, San Antonio.

District

First District Society, Fort Stockton, February, 1959. Dr. H. D. Garrett, El Paso, Pres.; Dr. E. S. Crossett, 1501 Arizona St., El Paso, Secy.

Second District Society, Lamesa. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Plainview, March, 1959. Dr. Robert H. Mitchell, Plainview, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society, San Angelo, Oct. 19, 1958. Dr. Fred D. Spencer, Brownwood, Pres.; Dr. W. Lacey Smith, 111 E. Harris, San Angelo, Secy.

Fifth and Sixth Districts Society. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 1314 16th St., Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society, Galveston, October, 1958. Dr. John H. Childers, Galveston, Pres.; Dr. M. Warren Hardwick, 839 E. Mulberry, Angleton, Secy.

Ninth District Society, Huntsville. Dr. Lyman C. Blair, Houston, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society, Beaumont, Nov. 11, 1958. Dr. B. F. Pace, Beaumont, Pres.; Dr. W. J. Poshataske, Silsbee, Secy.

Eleventh District Society, May, 1959. Dr. Ben Wilson, Tyler, Pres.; Dr. Phillip W. Taylor, 833 S. Beckham, Tyler, Secy.

Twelfth District Society. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Thirteenth District Society, Wichita Falls, 1959. Dr. W. R. Sibley, Abilene, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. Charles Wise, Naples, Pres.; Dr. George Bennett, 402 S. Bolivar, Marshall, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 11, 1958. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

Dallas Southern Clinical Society, Dallas, March 23-25, 1959. Dr. C. D. Bussey, Dallas, Pres.; Millard J. Heath, 433 Medical Arts Bldg., Dallas 1, Executive Officer.

International Medical Assembly of Southwest Texas, San Antonio, January, 1959. Dr. Lawrence B. Reppert, 817 South Texas Bldg., San Antonio, Secy; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 2-5, 1959. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 18, 1958. Dr. J. B. Hathorn, Jr., 1500 8th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 27-29, 1958. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July, 1959. Dr. Charles D. Reece, Pres.; Dr. C. Forrest Jorns, Secy., Exec. Office, 412 Jesse Jones Library Bldg., Houston 25.

Board Examinations

Texas State Board of Examiners in Basic Sciences, Austin, Oct. 13-14, 1958. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Anderson, Chief Clerk, 303 East Seventh, Austin.

Texas State Board of Medical Examiners, Fort Worth, Dec. 4-6, 1958. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.; Miss Luanna Knox, Assistant Secy.

Cancer Research Grants

Three research grants totaling $50,884 have been made to scientists and institutions in Texas by the American Cancer Society.

An institution grant of $15,000 to encourage research was given to Baylor University College of Medicine at Houston. Others receiving grants included Dr. Arthur Kirschbaum, late member of the Baylor faculty, who received $17,116 for research on mouse leukemia, and Dr. Thomas S. Osdene of the M. D. Anderson Hospital and Tumor Institute at Houston, who received an award of $18,768 for research on amino acid antagonists.

Tranquilizers in Schizophrenia

Effectiveness of tranquilizing drugs in treatment of schizophrenia has been proved in large scale controlled research carried out by 38 Veterans Administration hospitals, including the ones at Waco and Houston. The tranquilizers, chlorpromazine and promazine, were found markedly effective in enabling the patients to participate more actively in physical medicine and rehabilitation activities, group psychotherapy, and other hospital programs.

MEDICOLEGAL NOTES

Doctors Should Be Aware Of Statutes on Female Employees

Often the first knowledge a physician has that there are statutes governing the employment of female employees in his office in regard to hours worked is when a complaint is filed against him by one of his employees. The complaint may come as a shock, but ignorance on his part of the existence of these statutes controlling the employing of females is no defense. Any decision reached in regard to this complaint must rest solely upon the act or acts complained of by the female employee.

Article 5172a V.A.C.S. deals with the employment of females, and for the most part physicians will be affected by only two sections of this article. Section 1, in effect, states that a female shall not be employed for more than 9 hours in any one day nor more than 54 hours in any one week. Section 5 of this same article sets forth certain exemptions to the provisions of section 1. Section 5 states:

> The . . . preceding Sections shall not apply to stenographers and pharmacists, . . . nor telephone and telegraph companies in rural districts, and in cities or towns or villages of less than three thousand (3,000) inhabitants . . ., nor to superintendents, matrons and nurses and attendants employed by, in, and about such orphans' homes as are charitable institutions not run for profit, and not operated by the State . . . In case of extraordinary emergencies, such as great public calamaties, or *where it becomes necessary for the protection of human life* or property, longer hours may be worked; but for such time not less than double time shall be paid such female with her consent. Provided that any female employee who works more than forty (40) hours per week shall be entitled to receive from the employer double pay rate for all hours in excess of nine (9) hours per day, provided the employee actually works more than forty (40) hours per week.

The effect of these two sections is that either the physician's employees must fit into the exemptions expressed in section 5 or he must see that the female employee does not work more than 9 hours in any one day or more than 54 hours in any one week. Violation of this statute may subject the physician to a fine of not less than $50, nor more than $200, for each violation. It is provided that each day in which this statute is violated constitutes a separate offense for which the physician may be held liable.

The physician in determining whether or not he must follow the provisions of article 5172a regarding the employment of females in his office must take into consideration several factors. If the physician practices in a town with a population of 3,000 or less according to the last preceding federal census, it would seem that he would be exempted entirely from the provisions contained in article 5172a. However, it is not absolutely certain because of the confusing language of the statute.

The next consideration the physician should take into account in determining whether he is covered by the provisions of this statute is the capacity and type of work the female employee is doing. The statute expressly exempts stenographers from the operation of this law regardless of the size of the town or city. The question arises, however, as to just what female employees in his office constitute "stenographers." To date there has been no court decision construing just what is meant by "stenographer" as it is used in this statute. There are, however, cases in South Carolina and Nebraska where courts have held that a stenographer is one who is skilled in the art of shorthand writing or one whose business is to write in shorthand. If this interpretation was given to stenographer as it is found in our statute in Texas, it would seem narrowly to restrict the exemption available for women doing secretarial work. This would be especially true in view of the fact that many physicians when dictating use some type of recording machine instead of a stenographer. What the legislative intent was may have to be answered finally by our courts, but I believe a physician could safely interpret the word stenographer to include all female employees in his office who are doing secretarial-type work.

Another question then arises as to a situation in which a physician has hired a nurse and her duties are divided between assisting the physician in regard to the care and treatment of his patients and doing work of a secretarial nature. This poses the problem of whether the nurse may be completely exempt, partially exempt, or not exempt at all. Again it must be said that the answer to this question is unclear, but in my opinion the physician likely would be safe to consider the nurse exempt from the provisions of our statute so long as she devoted at least 50 per cent of her time to duties which could be considered secretarial in nature.

There is another provision in section 5 which also may exempt the physician to a large extent from some of the restrictions placed upon the employment of women. This can be found in the phrase "in case of extraordinary emergencies, such as great public calamaties, or where it becomes necessary for the protection of human life or property, longer hours may be worked." It would seem that it could be set forth convincingly that all the time devoted by the physician in his office in relation to his practice of medicine necessarily would be for the protection of human life, and, therefore, the provision contained in section 1 that a female employee may not be employed for more than 9 hours in any one day nor more than 54 hours in any one week would not apply to employees in the office of a physician. This exemption would apply regardless of whether or not the employee was doing secretarial work, but it must be remembered that the consent of the female employee must be obtained to work these additional hours and she also must be paid double time for all such hours in excess of 9 hours per day if her total hours worked for the week exceed 40 hours.

The conclusions which must be drawn from the above discussion of this statute are:

First, it would seem that a female employee in a physician's office who spends at least a majority of her time doing secretarial work is exempt from any provisions dealing with the number of hours per day or per week that she works.

Second, if the female employee is engaged in work that is not of a secretarial nature or work in which only a small percentage of her time is devoted to secretarial duties, this arrangement would seem to be governed to some extent by the provisions of article 5172a. However, the fact that the physician's practice is for the protection of human life would seem to allow the physician to work such employees in excess of 9 hours per day or 54 hours per week. But such excess must be with the consent of the employee with the physician reimbursing the employee at double time rate for any hours worked in excess of 9 hours per day. For the most part, I think the physician could presume that consent at least had impliedly been given by the employee to work any hours in excess of 9 hours per day or 54 hours per week so long as she did not object to these longer hours. It might be wise, however, to discuss this matter with prospective employees before they start to work.

—PHILLIP R. OVERTON, LL.B., Austin.

EDUCATION

Postgraduate Courses

New York University Postgraduate Medical School, New York, September.—Courses throughout the month of September will be offered in preventive and administrative medicine, occupational diseases, industrial hygiene, histology of the skin, regional anesthesiology, dermatologic histopathology, surgery, normal and pathological physiology, diagnostic radiology, malignant neoplasms of the female genital tract, and gynecological cytology. For other details, those interested may write to the Office of the Associate Dean, New York University Postgraduate Medical School, 550 First Avenue, New York 16.

Ophthalmology, Asia, September.—Lectures and seminars on subjects pertinent to ophthalmology will be held in connection with a tour to countries of the Orient sponsored by the Asia-Pacific Academy of Ophthalmology. The tour will be held following the International Congress of Ophthalmology in Brussels. Joint meetings with other ophthalmologists will be held in Pakistan, India, Thailand, the Philippines, and Hong Kong. Information on the postgraduate lectures may be obtained from Dr. William John Holmes, Liaison Secretary, Suite 280, Alexander Young Building, Honolulu 13, Hawaii. Inquiries regarding travel arrangements should be sent to Compass Travel Bureau, 55 W. 42nd St., New York 36.

University of Texas Postgraduate School of Medicine, Austin and Houston, September.—Courses offered for the month of September include "A Series of Advanced Clinical Bedside Courses," September 9-30, at Houston; "Newer Advances in the Management of the Hypertensive and Cardiac Patient," September 16-17, at Austin; and "Basic Principles and the Application of Medical Isotopes," September 18, at Austin. Further information may be obtained from the Office of the Dean, University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25.

Clinical Bedside Courses, Houston, September 9-30.—The University of Texas Postgraduate School of Medicine will give a series of courses which will employ bedside teaching and informal seminars. Courses will be taught in cardiology; proctology; neurology; endocrinology; cancer chemotherapy; clinical hematology; diseases of the chest; urology; ear, nose, and throat; eye; rheumatology; orthopedics; preoperative and postoperative care; pediatric problems; diagnostic radiology; and gastroenterology. All but cardiology will be limited to 5 registrants; tuition is $15. Application blanks and further information is available at the University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25.

Morphological Hematology, Houston, September 3-November 19.—The University of Texas Postgraduate School of Medicine will present a course dealing with cell morphology as the basis of hematologic diagnosis every Wednesday, beginning September 3 and ending November 19. The course is limited to 12 registrants; tuition fee is $25. Application blanks may be obtained from the University of Texas Postgraduate School of Medicine, Texas Medical Center, Houston 25.

Orthopaedic Surgery and Fractures, Oklahoma City, September 29.—The American Fracture Association is sponsoring a postgraduate course on orthopaedic surgery and fractures at the University of Oklahoma Medical Center in Oklahoma City, September 29. The course is acceptable for category 1 credit by the American Academy of General Practice; tuition fee $10. The annual meeting of the American Fracture Association will be held from September 29 to October 2 in Oklahoma City. Category 2 credit is being given by the American Academy of General Practice. Those desiring further information and a hotel reservation form may write the American Fracture Association, 610 Griesheim Bldg., Bloomington, Ill.

International College of Surgeons, Chicago, October 13-25.—The United States Section of the International College of Surgeons and the faculty of Cook County Graduate School of Medicine, Chicago, will present courses on the following topics: gastric, pediatric, large and small bowel, anorectal, pancreatic, splenic, gallbladder, gynecologic, hernia, esophageal, and thyroid surgery; physiology; intestinal obstruction; thoracic emergencies; cardiac arrest; hand injuries and infections; and abdominal injuries. Additional information may be obtained from the Cook County Graduate School of Medicine, 707 South Wood Street, Chicago 12, or International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

University of Dallas Advisory Board

Recent appointment to the University of Dallas Advisory Board include Dr. Arthur Grollman, Southwestern Medical School, Dallas; Dr. Thomas J. Coleman and Dr. W. S. Lorimer, Jr., Fort Worth; and Dr. A. Grizzaffi, Corsicana, have been announced by Bishop Thomas K. Gorman, university chancellor. The board, composed of 100 men and women, was organized in 1957 to serve the university in an educational, business, and civic capacity.

Board of Examiners in Basic Sciences

The Texas State Board of Examiners in the Basic Sciences will hold examinations October 13 and 14 in Austin. Details as to time and place, and other related information, may be obtained by writing to the chief clerk, Texas State Board of Examiners in the Basic Sciences, Cummins Building, 303 East Seventh Street, Austin. All arrangements should be completed one week before examination time.

Baylor University College of Medicine

The winner of a 2 year Wyeth Laboratories pediatric residency fellowship, Dr. Luther B. Travis of East Point, Ga., has chosen to take his postgraduate pediatric studies at the Texas Medical Center and Baylor University College of Medicine. The recipient was graduated from the University of Georgia Medical College.

MEDICAL MEETINGS

Conference on Aging In Houston, October 19-21

The Southwestern Regional Conference on Aging will be held October 19-21 at the Shamrock-Hilton Hotel in Houston under the auspices of the National Committee on the Aging of the National Social Welfare Assembly in cooperation with the Committee on Aging of the Community Council of Houston, the Texas Gerontological Society, the Louisiana Commission on Aging, and other regional organizations.

Purpose of the conference is to focus attention on the special problems of meeting the needs of older people in the Southwestern Region, to bring together national and

local leaders to discuss these problems and to recommend programs of action, and to spotlight for the benefit of the rest of the country the outstanding achievements in services to the aging in the Southwestern Region.

A special feature of the clinic will be a panel discussion on "How to Establish Community Programs for Older People," consisting of specific problems submitted by conference participants. Other highlights will include an address by the chairman of the National Committee, G. Warfield Hobbs of New York, entitled "The Economic Implications of an Aging Population" and a symposium made up of leaders in the medical profession on "The Role of Prevention in Chronic Illness in the Aging."

States especially included in the conference are Arizona, Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. Participants from other parts of the country are welcome to attend; registration fee is $2. Housing for the conference is the responsibility of each participant. For further information, physicians may write to the National Committee on Aging of the National Social Welfare Assembly, 345 East 46th Street, New York 17.

Baylor Medical Alumni Meet

Dr. Howard K. Crutcher, Sr., of Dallas, was named president of the Baylor University College of Medicine Alumni Association for 1958-1959 at the group's annual meeting held in Houston, April 21. Approximately 350 alumni, their wives, and guests were present.

Other officers include Dr. Hannibal Jaworski, Waco, president-elect; Dr. John C. Haley, Houston, honorary vice-president; Dr. M. P. Spearman, El Paso, first vice-president; Dr. Earl Malone, Dallas, second vice-president; and Dr. James R. Schofield, Houston, secretary-treasurer.

Dr. Stanley W. Olson, dean of Baylor University College of Medicine, cited to the group the three most pressing needs of the school to be additional science facilities, a teaching hospital, and alumni support. He proposed a plan which would double the facilities of the present building. Dr. W. H. Moursund, dean emeritus, also spoke to the alumni and their guests.

College of Surgeons

The second anniversary of the formation of the World Federations of Surgeons on a continental basis within the structure of the International College of Surgeons will be observed at a meeting of the parent organization September 19 at Chicago. The Western Regional Meeting of the college will be held August 21-23 at Reno.

Dr. Curtice Rosser of Dallas is president of the United States Section of the college and also of the North American Federation. The federation is composed of the United States, Canada, and Mexico.

Otolaryngology Assembly

The annual Assembly in Otolaryngology sponsored by the Department of Otolaryngology of the University of Illinois College of Medicine at Chicago will be held September 29-October 5. Interested physicians should write to Department of Otolaryngology, 1853 West Polk Street, Chicago 12.

Allergy Group to Meet in Paris

The third International Congress of Allergology will be held in Paris, France, October 19-26. It is sponsored by the International Association of Allergology and French Allergy Association.

Symposiums will include those on asthma and emphysema, immunology, recent clinical advances, biochemical aspects, auto-immune reactions, dermatology, and socio-economics aspects. Participants will be world authorities in special fields. There will be round-table small group discussions on selected subjects.

For further information one may write Dr. Bernard N. Halpern, 197 Boulevard St. Germain, Paris 7.

Hospital Association Meeting

Texans on the program of the American Hospital Association convention, which is being held August 18-21 at Chicago, include Tol Terrell, president of the association and administrator of the Shannon West Texas Memorial Hospital at San Angelo; Mrs. Elmore Borchers, president of the Mercy Hospital Auxiliary at Laredo; and Boone Powell, administrator of the Baylor University Hospital at Dallas.

Urologists to Meet in Dallas

The meeting of the South Central Section of the American Urological Association will be held October 12-15 at the Baker Hotel in Dallas with Dr. Harry M. Spence, Dallas, as general chairman. The registration fee is $35 for physicians and $25 for wives; meetings are open to all doctors. A special feature will be a panel on "Obstructive Uropathy in Children." Dr. Victor Marshall of New York will be the guest speaker. Further information is available from South Central Section, American Urological Association, P. O. Box 3023, Pueblo, Colo.

Congress of Psychotherapy

The Fourth International Congress of Psychotherapy, organized by the Sociedad Española de Medicina Psicosomatica y Psicoterapía, will be held September 1-7 in Barcelona, Spain. Main theme for the congress will be "Psychotherapy and Existential Analysis." Further information may be obtained from Dr. Ramón Sarró, Cátedra de Psiquiatría de la Facultad de Medicina, Casanova 143, Barcelona, Spain.

Colorado Society Meeting

More than 100 scientific papers, panels, and exhibits, plus a variety of social events will be on the agenda for the Colorado State Medical Society's annual session, which will be held at Colorado Springs September 24-27. For information regarding registration and reservations, doctors may write Harvey T. Sethman, Executive Secretary, Colorado State Medical Society, 835 Republic Building, Denver 2.

Scott and White Aumni

The Scott and White Alumni Association will meet September 12-13 in Temple.

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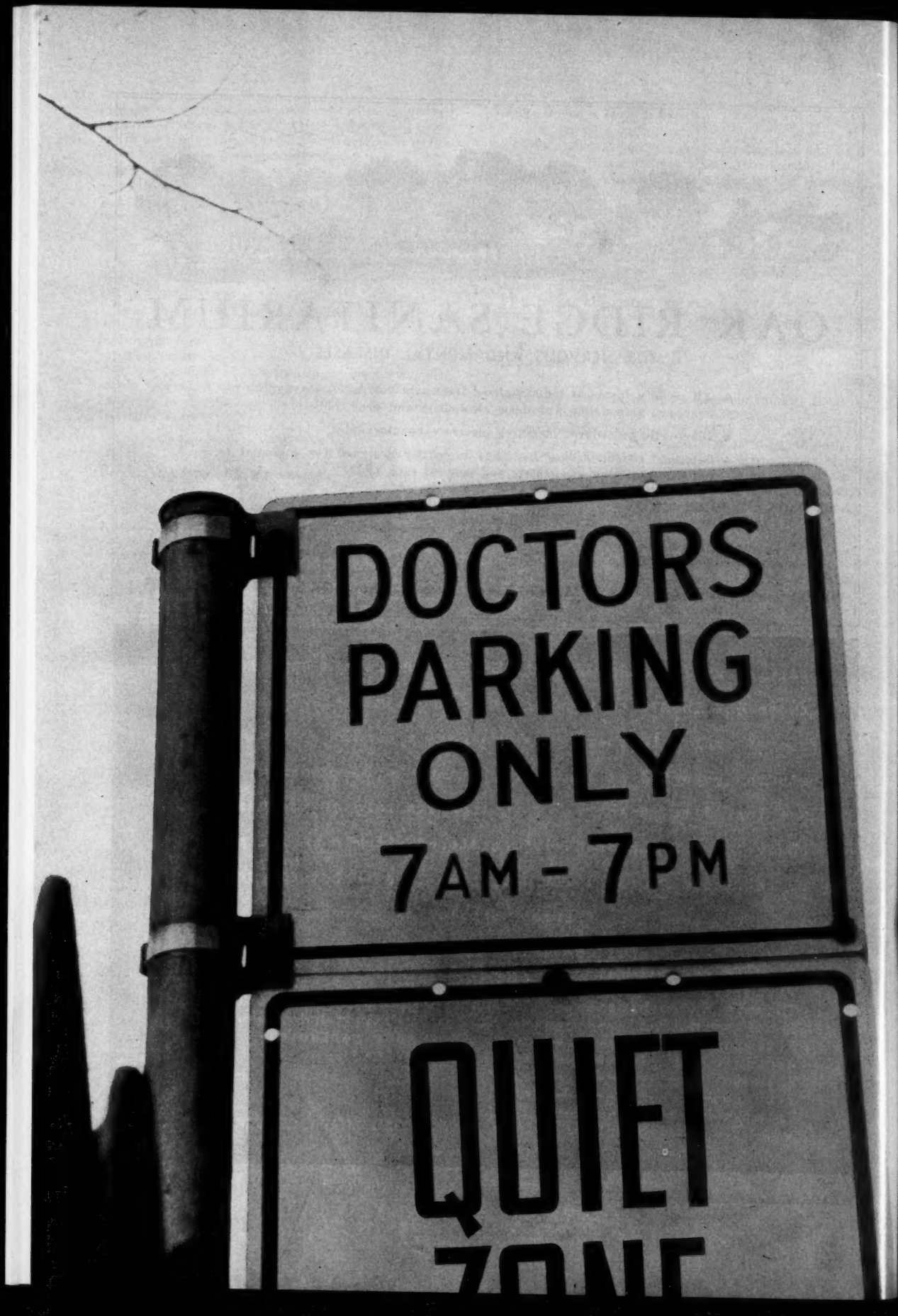
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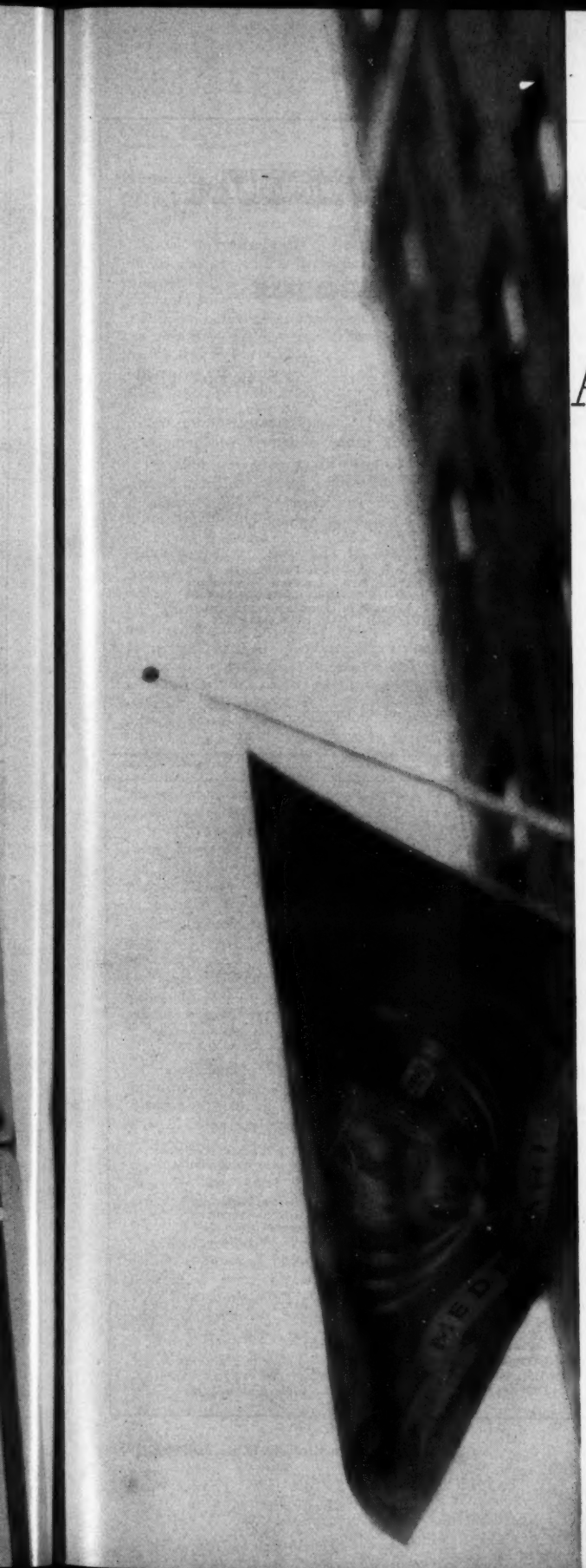

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Howard M. Burkett, M.D., Associate Psychiatrist
James K. Peden, M.D., Associate Psychiatrist
Ward G. Dixon, M.D., Associate Psychiatrist
Jerry M. Lewis, M.D., Associate Psychiatrist
C. L. Jackson, M.D., Associate Psychiatrist
LeeOwen S. Buford, M.D., Associate Psychiatrist
Albert F. Riedel, Jr., M.D., Resident Psychiatrist
Belvin A. Simmons, M.D., Resident Psychiatrist
E. Clay Griffith, M.D., Resident Psychiatrist

Frances Campbell, R.N., B.S., Director of Nurses
Donald Bertoch, M.S., Clinical Psychologist
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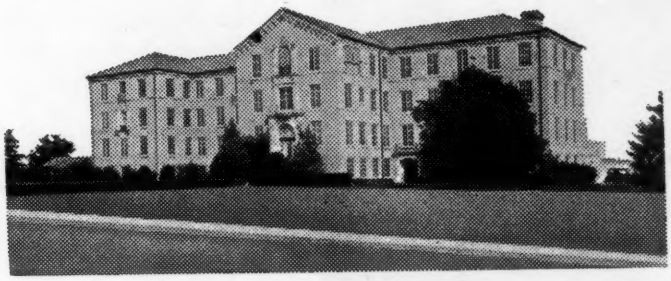
Ralph M. Barnette, Jr., Business Manager



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James T. Lee, M.D.
Charles H. Wilson, M.D., F.A.C.S.
ORTHOPEDIC SURGERY
Jack E. Maxfield, M.D., F.A.C.S.
Clyde W. Parsons, M.D.
ORAL SURGERY
R. A. Mitchell, D.D.S.
E. E. Stewart, D.D.S.
UROLOGY
Owen C. Berg, M.D., F.A.C.S.
LABORATORIES
Claude D. Wilson, M.D., D.A.B.R., Radiology
Joe D. Steed, M.D., D.A.B.R., Radiology
OTOLARYNGOLOGY
O. P. Moffitt, Jr., M.D.
RADIOACTIVE ISOTOPES
Claude D. Wilson, M.D., D.A.B.R.
Joe D. Steed, M.D., D.A.B.R.
Julian H. Acker, M.D.

MEDICINE
P. K. Smith, M.D., F.A.C.P., Diagnosis & Internal Medicine
I. L. Humphrey, Jr., M.D., Diagnosis & Internal Medicine
W. B. Whiting, M.D., F.A.C.P., Cardiology
R. F. Knox, M.D., Endocrinology
Julian H. Acker, M.D., Diagnosis & Internal Medicine
Blair P. Coleman, M.D., Diagnosis & Internal Medicine
Preston McCall, M.D., Diagnosis & Internal Medicine
OPHTHALMOLOGY
Alton Munro, M.D.
PEDIATRICS
R. L. Nelson, M.D., F.A.A.P.
George W. Slaughter III, M.D., F.A.A.P.
OBSTETRICS AND GYNECOLOGY
W. L. Parker, M.D., F.A.C.S.
Warren T. Kable, M.D.
Frank J. Lee, M.D.
ADMINISTRATIVE OFFICER
Bertha McNeill, Administrator

DRUG NOTES

Headache, Spasm, Senile Psychosis Attacked by New Preparations

MEDACHE (Organon) is a product for the treatment of nonvascular or tension headache. It is designed to relieve pain, as well as tension and anxiety and to act as an analgesic calmative.

Each uncoated tablet contains phenyltoloxamine dihydrogen citrate 44 mg. (25 mg. of the base); salicylamide, 150 mg.; acetophenetidin, 150 mg.; and caffeine, 32 mg.

Medache is indicated for the relief of nonvascular headaches, fever, pain and discomforts of colds and upper respiratory infections, neuralgia, bursitis, dysmenorrhea, myalgia, dental pain, postpartum pain, sinusitis, hay fever, and other allergic reactions.

The adult dosage for tension and other nonvascular headaches is 2 tablets initially followed by 2 tablets in ½ hour if necessary. For the treatment of upper respiratory distress, a dose of 2 tablets three times a day is suggested. Not more than 6 tablets should be taken in any 24 hour period. Children 6 to 12 years may be given one-half the adult dose.

The ingredients are all known and proven substances. The antihistamine phenyltoloxamine, for example, is Bristol Laboratories' Bristamin and occurs under its generic name in more than 23 other preparations. Acetophenetidin is Phenacitin, and thus the balance of the formula is similar to A.P.C. in which the aspirin is replaced with salicylamide. Salicylamide is orthohydroxybenzamide and is already known as a constituent of Raspberin solution (Miller), Salrin tablets (Warren-Teed) and many others. Salicylamide is found in more than 56 other formulations.

MUREL (Ayerst) offers a three way attack as an antispasmodic. Murel is said to inhibit the transfer of stimuli from the parasympathetic nervous system to the effector cells of smooth muscle. This is an atropine-like action. A direct action on smooth muscle (papaverine-like) reinforces the anticholinergic effect. There is also a brief ganglionic blocking action.

Murel is suggested as an adjunct in the treatment of peptic ulcer and for spasm and hypermotility of the gastrointestinal tract, the genitourinary tract, and in biliary spasm.

The dosage varies from 10 to 20 mg. every 4 to 6 hours, but is limited to 60 mg. in 24 hours, depending on the condition and severity. Higher dosages are usually required in spasm of the genitourinary and biliary tracts.

Murel is valethamate bromide (phenylmethylvaleric-acid-beta-diethylaminoethylester bromomethylate) and is supplied in 10 mg. tablets and 5 cc. vials, 10 mg. in each cubic centimeter. Many of the synthetic antispasmodics are derivatives of diethylaminoethanol.

BENIZOL (Crystal, Bentex), a formulation of pentylenetetrazol 100 mg. and nicotinic acid 50 mg., is used in senile psychosis syndrome, mild memory defects, and cerebral arteriosclerosis. Benizol is supplied in tablet form and as an elixir.

Pentylenetetrazol (pentamethylenetetrazol) is more familiar as Metrazol (Bilhuber-Knoll). There are other preparations of pentylenetetrazol and nicotinic acid. See Benizol (Crystal, Bentex), Geroniazol (Columbus Pharmacal), Menic (Geriatric), Senilex (Durst), and Tosec (Haack).

BETADINE (Tailby-Nason) is a liquid antiseptic offering the broad germicidal spectrum of iodine without the usual irritation of skin or mucosa. Betadine is 1 per cent iodine in a complex of povidone and is indicated in the treatment of minor wounds, burns, and skin infections. It can be used on the oral mucosa, in vaginal conditions, and in preparing for injections or surgery. Betadine is effective against bacteria, viruses, fungi, and other organisms.

Povidone is the generic name for polyvinylpyrrolidone or P.V.P., the synthetic polymer used as a blood volume expander during World War II.

Isodine is a similar preparation for topical application by the Isodine Corporation.

LOFENLAC (Mead Johnson) is a dietary preparation for the management of phenylketonuria, a congenital, hereditary inability to metabolize effectively the amino acid phenylalanine, which is necessary as a constituent of all protein.

The disease causes mental retardation, and since we have an estimated 6,000 to 9,000 cases in our country, the need will be limited. Pharmacies should place orders on a demand basis only. The price is about $12.50 for a 2½ pound can.

Parke-Davis now supplies paper diagnostic disks impregnated with Midicel in 50 mg., 150 mg., or 300 mg. concentrations to be used to test the qualitative sensitivity of a specific organism to the drug, and thus serve as a guide for the treatment. Fifty disks are about $1.70.

—HERBERT SCHWARTZ, M.S., Austin.

GENERAL INTEREST

TB Topics: Skin Tests

A renewed interest in tuberculin skin testing has come about as a result of the increase in the number of active cases of tuberculosis now being found in the aged, the tendency of these older people to infect children, and the likelihood that these children will carry their infections into the advanced years of their lives before becoming active, and that they then will come into contact with their own grandchildren and start the whole vicious cycle over again.

Tuberculosis used to be mainly a disease of infancy and adolescence. Dormant childhood infections were most likely to become activated in the 15 to 30 year age period. It even seemed then that if a primary infection healed and did not become reactivated by the age of 40, the victim probably would never have active disease.

Now the picture is changing. Germs in these dormant lesions are breaking out in the 60 to 90 year age period in many cases to produce active, contagious disease, and physicians are coming to realize that a "healed focus" is always dangerous, and the longer the life the more likely it is to reactivate.

Another fact emerging from recent survey studies is the change observed in the behavior of the disease in these older patients. In contrast with the stormy course of the old textbook picture seen in the 15 to 30 age period in which symptoms and signs appeared early, the disease in advanced age groups seems to be relatively asymptomatic and quiet. This change in course allows it to slip by unrecognized in many cases until contacts have been exposed and the germs widely disseminated.

To control this growing source of infection the infected persons in the elderly population must be located and supervised so that diagnosis, isolation, and treatment can be accomplished as soon as any activity appears.

The tuberculin skin test is the most practical and economical means of identifying the infected group.

Preoccupied with optimistic enthusiasm over the fallacious idea that modern surgery and wonder drugs have about whipped tuberculosis, many people are totally unaware that we have a back-log of 30,000 infected people in every

100,000 population.* And the tuberculin test alone can find them.

With a little sober reflection it should be evident that if we ever expect to control tuberculosis, all these germ carriers must be found and placed under medical supervision, so that isolation and treatment can break up the age-old cycle of spread from generation to generation that has cursed mankind through the centuries of history.

—Committee on Tuberculosis,
Texas Medical Association

Personals

Dr. Andrew S. Tomb of Victoria received a plaque and certificate of service July 11 during sessions of the Institute on Alcohol Studies held in Austin. His citation noted that he was active in the Texas Medical Association and Academy of General Practice in developing one of the first comprehensive evaluations in the United States of alcoholism as a medical problem.

A resolution commending *Dr. Howard O. Smith,* Marlin, president of Texas Medical Association, and former president of the Texas State Board of Medical Examiners, was adopted recently by the board.

Dr. C. D. Dixon, Corpus Christi, has been appointed full time medical director of the Reynolds Metals Company plants. Dr. Dixon, who has served as part time director since the plants opened, assumed his duties August 1.

Dr. W. W. Schuessler, El Paso, recently was elected president of the El Paso Chamber of Commerce, the first doctor to serve in that capacity. *Dr. M. P. Spearman,* also of El Paso, is chairman of the El Paso County Board of Development.

Dr. John McGivney and *Dr. Marcel Patterson,* University of Texas Medical Branch, Galveston, won the annual Collier Ford Martin Award plaque at the American Proctologic Society meeting recently for having the outstanding scientific exhibit. The exhibit was on treatment of ulcerative colitis.

Dr. and Mrs. Haskell D. Hatfield, El Paso, have reported the engagement of their son, Dolph Hatfield, El Paso, a graduate of the University of Texas, to Miss Joan Groesbeck, a sophomore at Texas Western College. The couple will be married September 10.

Studies Reveal VA Costs Higher than Nonfederal Hospitals

Cost per case in Veterans Administration hospitals is higher than either private or local government care in every type of hospital except the tuberculosis hospital, according to a survey report of the Council on Medical Service of the American Medical Association.

The average VA case costs about 3 times as much for hospital care as a case in a nonfederal hospital, 2 times as much as a case in a local government hospital, and more than 4 times as much as the average private hospital case. In VA general hospitals, the cost per case in approximately $400 more than in nonfederal hospitals; a case in a VA neuropsychiatric hospital costs about $2,000 more than one in nonfederal facilities.

The most pertinent argument against unqualified cost comparisons for the Veterans Administration and non-Veterans Administration hospitals is the different range of services provided, according to the council.

The council points out that numerous nonfederal hospitals provide professional services for the needy without charge while the VA pays physicians for treating nonservice connected disabilities, and that annual expenditures for many nonfederal hospitals may well include laboratory, pharmacy, or other specialized cost excluded from the VA expenditure figures.

The adjusted rates for VA general medical and surgical hospitals are approximately $13.97 per diem, 67 cents higher than private long term general medical and special hospitals and nearly $5.20 higher than local government hospitals in this category, according to the council's study. VA tuberculosis hospital adjusted rates are approximately $3 higher than either private or local government hospitals, and VA neuropsychiatric hospital rates are $4.60 to $4.85 higher than rates for all nonfederal hospitals.

The average VA hospital stay is about 60 days longer than the average nonfederal hospital stay, reports the council. It is almost 2 weeks longer than the average stay for local government hospitals, and more than 75 days longer than the average stay in private hospitals. The VA averages a stay of almost 150 days shorter in its neuropsychiatric hospitals and more than 100 days shorter in its tuberculosis hospitals than do nonfederal hospitals; its stay is shorter than local government neuropsychiatric and tuberculosis hospitals and than private tuberculosis hospitals.

Foundation for Infantile Paralysis Drops Reference to Specific Disease

The National Foundation for Infantile Paralysis has dropped reference to a particular disease and is now the National Foundation. Future plans center on the development of an organized voluntary force in the fields of medical research, patient aid, and professional education, flexible enough to meet new health programs as they arise.

First new goals will be research and eventually a patient aid program in arthritis and congenital malformations. Virus research will be continued and expanded as will the investigations currently being conducted into the disorders of the central nervous system.

Chest Physicians' Resolution

The American College of Chest Physicians, at its annual meeting June 18-22 at San Francisco, passed the following resolution:

> In view of the vital interest in improving public health and welfare, and in the eradication of diseases of the chest in particular, our position regarding the use of BCG (bacillus Calmette-Guerin) against tuberculosis in the United States should be made known. At the present time, there is insufficient evidence that significant protection is afforded by its use. The Council fully endorses the antituberculosis control program of the United States Public Health Service, which includes research in BCG, and urges the continued support of their program.

Board of Obstetrics and Gynecology

The names of Drs. Charles E. Gibbs, Lackland, and Amedeo A. Magliolo, Dickinson, who were certified by the American Board of Obstetrics and Gynecology at its May examinations, were omitted in the article "Obstetrics and Gynecology Diplomates" in the July Journal, page 509.

Myers, J. A.: 30,000 per 100,000, Dis. Chest, 30:1-19 (July) 1956.

Ernest T. Guy Named Director of Heart Association

Ernest T. Guy, formerly of Detroit, has been appointed executive director of the Texas Heart Association, according to Dr. W. B. Adamson, Abilene, president of the association. Prior to joining the Texas organization this summer, Mr. Guy served as executive director of the Michigan Heart Association.

MR. GUY

He is a graduate of Michigan State University and completed graduate studies at the University of Michigan and the University of Georgia. Mr. Guy organized a program at Michigan State University in work simplification for women with heart disease which has been recognized as a model for teaching homemakers by the United States Department of Agriculture and the American Heart Association.

In 1955, he served as a delegate from Michigan to President Eisenhower's White House Conference on Education. In addition to serving on a number of committees in the American Heart Association, Mr. Guy is active in the American Society of Association Executives and the Public Relations Society of America.

Texas Physicians Write Articles

The following is a partial list of recently published articles written by Texas physicians which are available at the Memorial Library of the Texas Medical Association. Another list will be printed in a future issue of the *Journal*. Articles appearing in Texas publications are not included in this list.

Adwan, K. O.; Lumpkin, Forrest E.; Stirman, Jerry A.; and Wilson, Ben J.: *Treatment of Peritonitis of Appendiceal Origin With and Without Intraperitoneal Terramycin,* Am. Surg. 24:452-457 (June) 1958.

Alexander, S. A., and Downs, James T., III: *Diabetes Insipidus Complicating Pregnancy,* Obst. & Gynec. 10:682-683 (Dec.) 1957.

Aves, Fred H.; Leidler, Franz; and McKnight, Evelyn: *Right-Left Identification of Bronchoscopy Smears,* J. Thoracic Surg. 35:829-830 (June) 1958.

Bennett, H. D.: *Hepatitis in the Geriatric Patient,* Geriatrics 13:345-351 (June) 1958.

Blasingame, F. J. L.: *Governmental and National Agencies in Problems of the Aging,* South. M. J. 51:231-233 (Feb.) 1958.

Clayton, George W.; Smith, Darrel; and Leiser, Alfred: *Familial Goiter with Defect in Intrinsic Metabolism of Thyroxine Without Hypothyroidism,* J. Pediat. 52:129-138 (Feb.) 1958.

Braude, Abraham I.: *Transfusion Reactions from Contaminated Blood,* New England J. Med. 258:1289-1293 (June 26) 1958.

Brown, Dor W.: *A New Ophthalmic Solution: Preliminary Report,* Eye, Ear, Nose & Throat Month. 36:726-728 (Dec.) 1957.

Cambon, Kenneth, and Guilford, Frederick R.: *Acoustic Neurilemoma,* A.M.A. Arch. Otolaryng. 67:302-312 (March) 1958.

Cameron, Bruce M., and McGehee, F. O.: *Calcification of the Pisiform Bursae; Report of Two Cases,* South. M. J. 51:496-498 (April) 1958.

Cooley, Denton A.: *Extracorporeal Circulation in Cardiac Surgery,* Surg., Gynec. & Obst. 106:615-617 (May) 1958.

Cooley, Denton A.; Latson, Joseph R.; and Keats, Arthur S.: *Surgical Considerations in Repair of Ventricular and Atrial Septal Defects Utilizing Cardiopulmonary Bypass,* Surgery 43:214-225 (Feb.) 1958.

Cox, Thomas R.; Krohn, Walter; and Remus, Luis E.: *Nonchromaffin Paraganglioma of the Middle Ear,* A.M.A. Arch. Otolaryng. 67:368-371 (March) 1958.

Crawley, James W.: *The Over-All Management of the Adult Epileptic,* M. Clin. North America (March) 1958.

Cronin, Thomas D.: *Method of Preventing Raw Area on Nasal Surface of Soft Palate in Push-Back Surgery,* Plast. & Reconstruct. Surg. 20:474-484 (Dec.) 1957.

Corssen, Gunter, and Allen, Charles: *Clinical Evaluation of 10 (N-Methyl-Piperidyl-(3)-Methyl) Phenothiazine (Pacatal) for Use in Anesthesia,* South. M. J. 51:589-697 (June) 1958.

Denman, Frank R., and others: *Fate of Human Aortic Homografts Ten, Twenty-Four, and Twenty-Seven Months After Transplantation,* A.M.A. Arch. Surg. 76:944-950 (June) 1958.

Dobson, Harold L.; Lipscomb, Harry S.; Greene, James A.; and Engelhardt, Hugo T.: *Socioeconomic Status and Diabetes Mellitus,* J. Chronic Diseases 7:413-421 (May) 1958.

Fein, Bernard T.: *Repeated Multiple Fractures of Ribs by Cough in Bronchial Asthma,* J. Allergy 29:209-213 (May) 1958.

Fitch, Edward A., and Denman, Frank R.: *Congenital Deficiency of Abdominal Musculature (A Syndrome): A Surgical Repair,* Am. Surgeon 24:371-376 (May) 1958.

Fogelman, Morris J.: *The Dallas Tornado Disaster,* Am. J. Surg. 95:201-506 (April) 1958.

Ford, Ralph V.; Rochelle, Jethro B., III; Handley, Carroll A.; Moyer, John H.; and Spurr, Charles L.: *Choice of a Diuretic Agent Based on Pharmacological Principles,* J.A.M.A. 166:129-136 (Jan. 11) 1958.

Gibson, John P.: *Reaction of 150 Infants to Cold Formulas,* J. Pediat. 52:404-406 (April) 1958.

Gingrich, Wendell D.: *Highlights of the First Pan-American Congress on Gerontology,* South. M. J. 51:228-231 (Feb.) 1958.

Girard, Louis J.: *Retroplacement of the Inferior Oblique Muscle,* Eye, Ear, Nose & Throat Month. 37:321-327 (May) 1958.

Goode, John V.: *Pitfalls of General Surgery,* Am. Surgeon 23:1075-1080 (Dec.) 1957.

Gordon, William B.; Love, Carl R.; and Tuttle, Lee L. D.: *Infected Urachal Cysts,* A.M.A. Arch. Surg. 76:571-579 (April) 1958.

Grater, William C.: *Prophylaxis of Recurring Infection in Children with Asthma by the Use of Tetracycline,* Am. Pract. & Digest Treat. 9:249-252 (Feb.) 1958.

Gregory, C. F.: *Bone Repair—Some Clinical Applications in Modern Fracture Management,* Am. Surgeon 24:461-468 (June) 1958.

Guilford, Fred R., and Wright, William K.: *Basic Techniques in Myringoplasty and Tympanoplasty,* Laryngoscope 68:825-888 (May) 1958.

Gifts to the Library

Dr. James W. Boyle, Jr., Austin, 4 journals.
Dr. Virgil B. Lawlis, Austin, 86 journals.
Dr. Georgia Legett, Austin, 37 journals, 6 reprints, 13 pamphlets.
Dr. E. D. Morton, Teague, 13 journals.
Dr. Jerome O. Ravel, Austin, 50 journals.
Dr. B. H. Reinarz, Austin, 326 journals.
Dr. Lorraine I. Stengl, El Campo, 118 journals, 37 reprints, 18 booklets.
Dr. D. R. Womack, Austin, 34 journals.

★ Motion Pictures

Out of Step

16 mm., sound, black and white, 14 minutes, 1958.

The film tells the dramatic story of an accident which occurs to a child whose father has always ridiculed safety measures, first aid, and other "Boy Scout" ideas. The scouts, of course, come to the rescue in the end.

The Silent Killer

16 mm., black and white, 14 minutes, 1958.

The dangers of carbon monoxide poisonings from gasoline exhausts are depicted.

★ Books

Books Newly Acquired

Aegerter, Ernest, and Kirkpatrick, John A., Jr.: *Orthopedic Diseases Physiology-Pathology-Radiology,* Philadelphia, W. B. Saunders Company, 1958.

Bovet, Theodor: *Love, Skill and Mystery—A Handbook to Marriage,* Garden City, Doubleday and Company, 1958.

Bredow, Miriam: *Medical Assistant,* New York, McGraw-Hill, 1958.

Brock, Sir Russell: *Anatomy of Congenital Pulmonary Stenosis,* New York, Paul B. Hoeber, 1957.

Bronowski, J.: *Science and Human Values,* New York, Julian Messner, Inc., 1956.

Cartwright, George E.: *Diagnostic Laboratory Hematology,* ed. 2, New York, Grune & Stratton, Inc., 1958.

Dobbin, E. Virginia, and others: *The Low Fat, Low Cholesterol Diet,* Garden City, Doubleday & Company, 1957.

Dolger, Henry, and Bernard, Seeman: *How to Live with Diabetes,* New York, W. W. Norton, 1958.

Hertig, Arthur: *Atlas of Tumor Pathology, Tumors of the Female Sex Organs,* sec. 9, Washington, Armed Forces Institute of Pathology, 1956.

Higgins, George A., and Orr, Thomas G., Jr.: *Orr's Operations of General Surgery,* Philadelphia, W. B. Saunders Company, 1958.

Hollender, Marc H.: *Psychology of Medical Practice,* Philadelphia, W. B. Saunders, 1958.

Lacassagne, A., and Gricouroff, G.: *Action of Radiation on Tissues—An Introduction to Radiotherapy,* New York, Grune & Stratton, Inc., 1958.

Lamb, Lawrence E.: *Fundamentals of Electrocardiography and Vectorcardiography,* Springfield, Ill., Charles C Thomas, 1957.

Lindner, Robert M.: *Rebel Without Cause . . .,* New York, Grune and Stratton, Inc., 1944.

Lown, Bernard, and Levine, Harold D.: *Atrial Arrhythmias, Digitalis and Potassium,* New York, Landsberger Medical Books, Inc., 1958.

Mice, Richard W. (Ed.): *Crime and Insanity,* New York, Philosophical Library, 1958.

Molloy, Robert E.: *Medical Electrical Equipment,* New York, Philosophical Library, 1958.

Moses ben Maimon (Maimonides): *The Preservation of Youth . . .,* edited by Hirsch L. Gordon, New York, Philosophical Library, 1958.

National Foundation for Infantile Paralysis: *Collected Reprints,* 1957, 1958, vol. 18, part 1 and 2.

Noyes, Arthur P., and Kolb, Lawrence C.: *Modern Clinical Psychiatry,* ed. 5, Philadelphia, W. B. Saunders Company, 1958.

Charles Pfizer and Company: *Pasteur Fermentation Centennial 1857-1957,* New York, 1958.

Popper, Hans, and Schaffner, Fenton: *Liver: Structure and Function,* New York, McGraw-Hill, 1957.

Raven, Ronald: *Cancer,* London, Butterworth, 1958, vol. 3.

Reiss, Max: *Psychoendocrinology,* New York, Grune and Stratton, Inc., 1958.

University of Texas M. D. Anderson Hospital: *Viruses and Tumor Growth,* 11th Annual Symposium on Fundamental Cancer Research, Houston, 1957.

White, Matthew, and Dennison, Wallace M.: *Surgery in Infancy and Childhood,* London, E. & S. Livingstone, Ltd., 1958.

Willson, J. Robert, and others: *Obstetrics and Gynecology,* St. Louis, C. V. Mosby, 1958.

Wilson, E. Bright, Jr.: *An Introduction to Scientific Research,* New York, McGraw-Hill, 1952.

Wolbert, Lewis R.: *Hypnoanalysis,* New York, Grune & Stratton, Inc., 1945.

Wolstenholme, G. E. W., and O'Connor, Cecilia M.: *Ciba Foundation Symposium on the Cerebrospinal Fluid,* Boston, Little, Brown and Company, 1958.

Year Book of Dermatology and Syphilology, 1957-58, Chicago, Year Book Publishers, 1958.

Year Book of Endocrinology 1957-58, Chicago, Year Book Publishers, 1958.

Year Book of Pathology and Clinical Pathology, 1957-58 series, Chicago, Year Book Publishers, 1958.

Book Notes

The Malabsorption Syndrome: A Mount Sinai Hospital Monograph

Edited by DAVID ADLERSBERG, M.D., Associate Attending Physician for Metabolic Diseases, Mount Sinai Hospital, New York; Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York. 252 pages. $5.50. New York, Grune and Stratton, 1957.

The terminology of the past regarding tropical sprue, nontropical sprue, and celiac disease, as well as the disorders of nutrition encountered in the patients with extensive bowel resection has received considerable clarification in this monograph. The editor regards these as clinical varieties of a single metabolic disorder which has as its basic abnormality the defect of intestinal absorption.

In the preparation of this monograph, the careful clinical study of 94 patients with spruelike states is the central

theme. Radiating from this are papers on intestinal absorption physiology; water, electrolyte, lipid, and protein metabolism; nutritional studies, including vitamin B_{12} uptake; hematologic changes; and neurologic, osseous, and roentgen aspects of the disorder. These are prepared by various members of the staff of the Mount Sinai Hospital who have collaborated with Dr. Aldersberg in the preparation of this study.

The chapter on small intestine biopsies by the oral route suggests a method of distinguishing idiopathic nontropical sprue from the secondary types which deserves further consideration and trial. The chapter on treatment is comprehensive and includes diet, drugs, and the use of corticosteroids, with careful evaluation of results and complications of each. The final chapter deals with management of the problems of extensive small intestine resection or exclusion surgery.

This book fills a need in the discussion of problems not adequately covered in other gastroenterologic works, and the authors have shown their devotion to the subject with these papers.

—F. C. Pannill, M.D., Corsicana.

Bone Tumors; General Aspects And an Analysis of 2,276 Cases

DAVID C. DAHLIN, M.D., Consultant, Section of Surgical Pathology, Mayo Clinic; Associate Professor of Pathology, Mayo Foundation, Rochester, Minn. 224 pages. $11.50. Springfield, Ill., Charles C Thomas, 1957.

Dr. Dahlin gives clear and concise information helpful in the diagnosis and classification of bone tumors.

The rhetorical part of his work leaves out a lot of no-account filling usually found in descriptive works of this kind. Also, along the way, are rays of humor such as where he lets the surgeon off the hook (he may have some noted ones in mind).

This book could be helpful in the library of all hospitals.

—E. A. Cayo, M.D., San Antonio.

Psychopathic Personalities

HAROLD PALMER, M.D. 179 pages. $4.75. New York, Philosophical Library, 1957.

This volume contains nine separate sections entitled "Psychopathic Personalities," "Schizophrenia," "The Depressive States," "The Obsessions," "Hysteria," "The Epilepsies," "The Tension Syndromes," "The Paranoid States," and "Mania." It represents another attempt to redefine psychiatric nosology, and this is done almost entirely by description of symptoms, with little emphasis on dynamics or treatment. The continued use of the vaguely defined and excessively inclusive entities of psychopathic personalities and hysteria seems particularly unfortunate in view of the excellent progress made in the past decade toward clarification of these groups. The author discusses predisposing character traits in each entity, and it is difficult, at times, to separate what the author considers to be predisposing character traits from what he considers to be pathological traits.

It is his stated purpose in this volume, ". . . to achieve a mode of presentation of psychiatry acceptable to workers in other disciplines including those concerned with the management of human beings," and this is an admirable and needed goal. However, the author appears to be primarily concerned with the social and philosophic implications of disordered interpersonal relationships. It would seem that his viewpoints are so highly personalized that members of other disciplines, taking this little volume as a primary reference book, would have a distorted idea of the current major trends and bodies of thought in the field of psychiatry in this country. For the psychiatrist, the book offers nothing new.

—T. Grady Baskin, M.D., Tyler.

Cerebral Lipidoses

A Symposium. Chairman, L. VAN BOGAERT, M.D., Director, Department of Neurology and Neuropathology, Institut Bunge, Antwerp; Editor, J. N. CUMINGS, M.D., Clinical Pathologist, National Hospital, and Director, Department of Biochemical Research, Institute of Neurology, London; Associate Editor, A. LOWENTHAL, M. D., Department of Neurology and Neurochemical Research, Institut Bunge, Antwerp. 212 pages. $8.50. Springfield, Ill., Charles C Thomas, 1957.

This is a record of papers given at the symposium organized by the Inter-University Foundation of Neuropathological Research, and sponsored by the Belgian Department of Public Education. The symposium was held July, 1955, at the Tropical Institute of Medicine, Antwerp. Participants came from 35 countries.

The first purpose of the symposium was an attempt to make a classification of lipidoses and their relationship to various forms of leukodystrophy. The second purpose was to determine the current value of histochemical or routine histological methods, and the third to compare the quantitative chemical methods used in different laboratories by the various investigators.

OFFICERS, COUNCILS, AND COMMITTEES

Following are the officers, councils, and committees of the Texas Medical Association for the year 1958-1959 with the year in which their terms of office expire indicated in parentheses.

OFFICERS

Howard O. Smith, Marlin, President.
Franklin W. Yeager, Corpus Christi, President-Elect.
C. E. Willingham, Tyler, Vice-President.
J. M. Travis, Jacksonville, Secretary (1959).
C. Lincoln Williston, Austin, Executive Secretary.
T. H. Thomason, Fort Worth, Treasurer (1959).
Charles P. Hardwicke, Austin, Speaker of the House of Delegates.
James D. Murphy, Fort Worth, Vice-Speaker of the House of Delegates.

BOARD OF TRUSTEES

R. W. Kimbro, Cleburne, Chairman (1962)
G. V. Brindley, Temple, Vice-Chairman (1960).
Byron P. York, Houston, Secretary (1963).
J. B. Copeland, San Antonio (1961).
Troy A. Shafer, Harlingen (1959).

Board of Councilors.

First District: C. E. Oswalt, Jr., Fort Stockton, Chairman (1961); Russell Holt, El Paso, Vice-Councilor.

Second District: Henrie E. Mast, Midland (1960); A. H. Daniell, Brownfield, Vice-Councilor.

Third District: Robert A. Neblett, Canyon (1959); William J. Campbell, Amarillo, Vice-Councilor.

Fourth District: O. H. Chandler, Ballinger (1961); James P. Anderson, Brady, Vice-Councilor.

Fifth District: [1]Walter Walthall, San Antonio (1959).

Sixth District: [1a]Stanley W. Bohmfalk, Weslaco (1959).

Seventh District: David Wade, Austin (1960); Ray L. Shepperd, Burnet, Vice-Councilor.

Eighth District: Carlos E. Fuste, Jr., Alvin (1960).

Ninth District: Herbert H. Duke, Baytown (1960); James H. Sammons, Highlands, Vice-Councilor.

Tenth District: Stephen B. Tucker, Nacogdoches (1960); Gail Medford, Lufkin, Vice-Councilor.

Eleventh District: R. H. Bell, Palestine (1961).

Twelfth District: Tom M. Oliver, Waco (1959).

Thirteenth District: Travis Smith, Abilene, Vice-Chairman (1961); W. P. Higgins, Jr., Fort Worth, Vice-Councilor.

Fourteenth District: R. M. Tenery, Waxahachie (1961); B. E. Park, Dallas, Vice-Councilor.

Fifteenth District: H. O. Padgett, Marshall, Secretary (1959); James E. Ball, Mt. Pleasant, Vice-Councilor.

Delegates to the American Medical Association and Alternates

Troy A. Shafer, Harlingen (1960).
Alternate: John L. Otto, Galveston (1960).
John K. Glen, Houston (1960).
Alternate: Robert W. Kimbro, Cleburne (1960).
G. W. Cleveland, Austin (1960).
Alternate: Ridings E. Lee, Dallas (1960).
James H. Wooten, Columbus (1960).
Alternate: E. P. Hall, Jr., Fort Worth (1960).
T. C. Terrell, Fort Worth (1959).
Alternate: Denton Kerr, Houston (1959).
M. O. Rouse, Dallas, Chairman (1959).
Alternate: J. W. Rainer, Odessa (1959).
J. B. Copeland, San Antonio (1959).
Alternate: George Turner, El Paso (1959).
Delegate Designate: J. C. Terrell, Stephenville.
Alternate Delegate Designate: J. L. Cochran, San Antonio.

Executive Council

Ex officio, President (Chairman), President-Elect, Vice-President, Secretary, Executive Secretary, Treasurer, Speaker of the House of Delegates, Vice-Speaker of the House of Delegates, Board of Trustees, Board of Councilors, Texas Delegates to the American Medical Association, Chairmen of All Councils, Members of the Council on Medical Jurisprudence, and Chairman of the Committee on Public Relations.

Council on Medical Defense

Charles L. McGehee, San Antonio, Chairman (1960).
R. G. Baker, Fort Worth (1963).
P. M. Kuykendall, Ranger (1962).
Louis W. Breck, El Paso (1961).
John H. Wootters, Houston (1959).
Howard O. Smith, Marlin (ex officio).
C. Lincoln Williston, Austin (ex officio).

[1]*Appointed June 18, 1958, to replace Dr. Robert F. Gossett, San Antonio, who resigned May 13, 1958.*

[1a]*Appointed to replace Dr. F. W. Yeager, Corpus Christi, who resigned upon his election as President-Elect.*

Council on Medical Jurisprudence

G. W. Cleveland, Austin, Chairman (1959).
J. W. Rainer, Odessa (1963).
John M. Smith, Jr., San Antonio (1962).
Robert D. Moreton, Fort Worth (1961).
A. H. Daniell, Brownfield (1960).
Howard O. Smith, Marlin (ex officio).
C. Lincoln Williston, Austin (ex officio).

Council on Scientific Work

L. Bonham Jones, San Antonio, Chairman (1961).
B. H. Williams, Temple (1963).
Herman C. Sehested, Fort Worth (1962).
E. D. McKay, Amarillo (1960).
John C. Kennedy, Houston (1959).
Howard O. Smith, Marlin (ex officio).
C. Lincoln Williston, Austin (ex officio).

Council on Medical Economics

Harvey Renger, Hallettsville, Chairman (1962).
Charles D. Bussey, Dallas (1963).
A. G. Barsh, Lubbock (1961).
C. F. Jorns, Houston (1960).
Gail Medford, Lufkin (1959).
Howard O. Smith, Marlin (ex officio).
C. Lincoln Williston, Austin (ex officio).

Council on Medical Education and Hospitals

Albert W. Hartman, Jr., San Antonio, Chairman (1962).
M. H. Crabb, Fort Worth (1963).
Truman G. Blocker, Jr., Galveston (1961).
Olin B. Gober, Temple (1960).
William V. Leary, Houston (1959).
Howard O. Smith, Marlin (ex officio).
C. Lincoln Williston, Austin (ex officio).

Council on Constitution and By-Laws

John F. Thomas, Austin, Chairman (1960).
Wickliffe R. Curtis, El Paso (1963).
[2]J. T. Billups, Houston (1962).
[3]George M. Jones, Dallas (1961).
[4]William R. Klingensmith, Jr., Amarillo (1959).
Charles P. Hardwicke, Austin (ex officio).
James D. Murphy, Fort Worth (ex officio).
Howard O. Smith, Marlin (ex officio).
C. Lincoln Williston, Austin (ex officio).

War Council

Ex officio, President (Chairman), President-Elect, Vice-President, Secretary, Executive Secretary, Treasurer, Speaker of the House of Delegates, Board of Trustees, Board of Councilors, Chairmen of All Councils, and Chairman of the Committee on Public Relations.

Committee on Cancer

Charles Phillips, Houston, Chairman (1959).
Tom B. Bond, Fort Worth (1963).
Howard R. Dudgeon, Jr., Waco (1963).
[5]Mack F. Bowyer, Abilene (1962).

[2]*Appointed July 31, 1958, to replace Dr. Ridings E. Lee, Dallas, who resigned April 21, 1958.*

[3]*Appointed July 26, 1958, to replace Dr. R. H. Bell, Palestine, who resigned April 21, 1958.*

[4]*Appointed July 26, 1958, to fill vacancy created by resignation of Dr. J. Charles Dickson, Houston, on March 31, 1958.*

[5]*Appointed July 21, 1958, to replace Dr. E. T. Driscoll, Midland, who resigned July 21, 1958.*

J. L. Goforth, Dallas (1962).
David H. Allen, Wichita Falls (1961).
Richard G. Granbery, Marshall (1961).
R. Lee Clark, Jr., Houston (1960).
Samuel J. Merrill, Brownsville (1960).
John D. Weaver, Austin (1959).

COMMITTEE ON MEDICAL HISTORY

William M. Crawford, Fort Worth, Chairman (1962).
Pat I. Nixon, San Antonio (1963).
Morris Polsky, Austin (1963).
R. T. Wilson, Houston (1962).
L. H. Reeves, Fort Worth (1961).
Hall Shannon, Dallas (1961).
J. M. Coleman, Austin (1960).
W. D. Thames, Jr., Lufkin (1959).
W. B. Russ, San Antonio (1959).

COMMITTEE ON PUBLIC RELATIONS

Joe R. Donaldson, Pampa, Chairman (1961).
Glenn D. Carlson, Dallas (1963).
Foy H. Moody, Corpus Christi (1963).
A. F. Clark, Jr., San Antonio (1962).
Thomas Royce, Houston (1960).
Van D. Goodall, Clifton (1959).
James Hallmark, Fort Worth (1959).

COMMITTEE ON TUBERCULOSIS

Elliott Mendenhall, Dallas, Chairman (1963).
R. B. Morrison, Austin (1963).
J. Walter Park, III, San Antonio (1962).
John A. Wiggins, Fort Worth (1962).
[6]C. B. Young, Tyler (1961).
John H. Selby, Lubbock (1961).
O. Edward Egbert, Jr., El Paso (1960).
Daniel E. Jenkins, Houston (1960).
John W. Middleton, Galveston (1959).
John W. Overstreet, Houston (1959).

COMMITTEE ON MENTAL HEALTH

P. C. Talkington, Dallas, Chairman (1963).
Joseph C. Gallagher, Hearne (1963).
A. D. Pattillo, Austin (1962).
Dorothy Wyvell, Midland (1962).
W. S. Barcus, Fort Worth (1961).
Robert L. Johnson, Pittsburg (1961).
P. C. Palasota, Abilene (1960).
Holland C. Mitchell, Waco (1960).
Frank S. Schoonover, Fort Worth (1959).
Andrew S. Tomb, Victoria (1959).

COMMITTEE ON PUBLIC HEALTH

Thomas P. Kennerly, Houston, Chairman (1961).
Morris E. Malakoff, Laredo (1963).
William E. Lockhart, Jr., Alpine (1963).
Austin Hill, Houston (1962).
James E. Ball, Mt. Pleasant (1962).
Ben Primer, Sr., Austin (1961).
Thomas H. Diseker, San Antonio (1960).
H. K. Brask, San Angelo (1960).
Henry A. Holle, Austin (1959).
Sam H. Gainer, San Angelo (1959).

COMMITTEE ON BLOOD BANKS

E. E. Muirhead, Dallas, Chairman (1961).
Charles F. Pelphrey, Austin (1963).
O. J. Wollenman, Jr., Fort Worth (1962).

[6]*Appointed August 4, 1958, to fill vacancy created by resignation of Dr. Porter Bailes, Tyler, on July 22, 1958.*

K. P. Wittstruck, Waco (1960).
D. A. Todd, San Antonio (1959).

COMMITTEE ON INDUSTRIAL HEALTH

Val C. Baird, Houston, Chairman (1959).
Ralph G. Greenlee, Midland (1963).
Carl A. Nau, Galveston (1963).
S. W. Bradford, Tyler (1962).
N. B. Daniel, Texarkana (1962).
G. B. Stephenson, Beaumont (1961).
R. H. Thomason, Corpus Christi (1961).
Robert J. Potts, Dallas (1960).
Max E. Johnson, San Antonio (1960).
V. M. Payne, Jr., Dallas (1959).

COMMITTEE ON PATIENT CARE

Joseph F. McVeigh, Fort Worth, Chairman (1961).
Russell D. Holt, Jr., Meridian (1963).
G. V. Brindley, Jr., Temple (1962).
Joe A. Shepperd, Burnet (1960).
G. E. Brereton, Dallas (1959).

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

Ralph E. Gray, Velasco, Chairman (1961).
Ben J. Wilson, Dallas (1963).
Ralph A. Munslow, San Antonio (1962).
T. E. Dodd, Austin (1960).
W. H. Hamrick, Houston (1959).

COMMITTEE FOR LIAISON WITH WORKMEN'S COMPENSATION INSURANCE COMPANIES

[7]Edward T. Smith, Houston, Chairman (1962).
John B. Chester, Dallas (1963).
Sam N. Key, Jr., Austin (1961).
Frederick C. Rehfeldt, Fort Worth (1960).
M. H. Morris, San Antonio (1959).

COMMITTEE ON SCIENTIFIC EXHIBITS

J. Edward Johnson, Austin, Chairman (1960).
Asher R. McComb, San Antonio (1963).
Herbert Hipps, Waco (1963).
J. E. Miller, Dallas (1962).
May Owen, Fort Worth (1962).
W. S. Fields, Houston (1961).
Jack M. Partain, San Antonio (1961).
Dennis Voulgaris, Wharton (1960).
R. R. White, Temple (1959).
Jasper H. Arnold, Houston (1959).

COMMITTEE ON SCHOOL-PHYSICIAN RELATIONSHIPS

Jay J. Johns, Taylor, Chairman (1962).
A. R. Hazzard, Giddings, Vice-Chairman (1961).
Edwin L. Rippy, Dallas (1963).
J. Collier Rucker, Jacksonville (1963).
R. K. Arnett, Lufkin (1962).
E. E. Addy, Jr., Cisco (1961).
M. T. Braswell, Henderson (1960).
Paul H. Mitchell, Corsicana (1960).
Wallace I. Hess, Lubbock (1959).
L. H. Leberman, Commerce (1959).

(continued on page 616)

[7]*Appointed chairman July 28, 1958, to fill vacancy created by resignation of Dr. Sam N. Key, Jr., Austin, who resigned the chairmanship on July 2, 1958, but continues as a member of committee.*

Public Relations Conference

Texas Medical Association Headquarters Building, Austin

Saturday, September 6, 1958

Morning Program, 10:30 a. m.

Call to Order.—DR. JOE R. DONALDSON, Pampa, Chairman, Committee on Public Relations.

Keynote for Conference.—DR. HOWARD O. SMITH, Marlin, President, Texas Medical Association.

New Styles in American Medicine.—JOHN L. BACH, Chicago, Director, Press Relations, American Medical Association.

MR. BACH

1958 PR Projects for County Medical Societies (Case Reports).—DR. FOY H. MOODY, Corpus Christi, Committee on Public Relations, moderator.

Stimulating Interprofessional Relations and Improving Liaison with Voluntary Health Agencies.—DR. D. K. BOYD, Denton.

Medical Education Week.—DR. WILLIAM M. SHERRILL, Houston.

PR in Community Relations.—DR. G. M. MCCASKEY, Corpus Christi.

PR Dividends Through Emergency Medical Service.—DR. NORMAN L. WEST, Waxahachie.

Dallas Fights Its Waistline.—MILLARD J. HEATH, Dallas.

PR in Youth Activities.—DR. L. G. CIGARROA, Laredo.

Luncheon, 12:45 p. m.

Afternoon Program, 2:00 p. m.

A Global War Against Disease.—JOHN T. CONNOR, President, Merck & Co., Inc., Rahway, N. J.

Problems of Grievance Committees (Jury Panel).—DR. FRANKLIN W. YEAGER, Corpus Christi, President-Elect, moderator.

Case 1.—DR. MILTON V. SPARK, Waco, chairman.

Case 2.—DR. JAMES S. REITMAN, Laredo, chairman.

Case 3.—DR. LOVELL B. CRAIN, Houston, chairman.

MR. BARNETT

Strategy Is Everybody's Business.—FRANK ROCKWELL BARNETT, Director of Research, The Richardson Foundation, New York.

Evening Program, 6:00 p. m.

An Evening on Lake Austin. Hospitality hour aboard the Riverboat Commodore with a fish fry at Green Shores. Courtesy of Charles O. Finley and Company.

Orientation Program

Texas Medical Association Headquarters Building, Austin
Saturday, September 6, 1958

Morning Session, 9:00 a. m.

Welcome.—DR. TRAVIS SMITH, Abilene, Vice-Chairman, Board of Councilors.

The Medical Association—An Accounting of Stewardship—What Happens to Your $50?—DR. TROY A. SHAFER, Harlingen, Board of Trustees.

Public Relations and Socio-Economic Considerations in the Practice of Medicine.—C. LINCOLN WILLISTON, Austin, Executive Secretary.

Medical Ethics Considerations in the Practice of Medicine.—DR. C. E. OSWALT, JR., Fort Stockton, Chairman, Board of Councilors.

Medical Etiquette; Obligations of the Physician to Colleagues and to the Profession.—DR. R. MAYO TENERY, Waxahachie, Councilor, District 14.

Serving the Doctors of Texas.—DONALD M. ANDERSON, Austin, Assistant Executive Secretary.

Medical Economics Considerations in the Practice of Medicine.—DR. HARVEY RENGER, Hallettsville, Chairman, Council on Medical Economics.

Luncheon, 12:00 Noon

Afternoon Program, 1:15 p. m.

Principles of Office Management.—MARK M. MYERS, Dallas, Dental-Medical Economics.

A Global War Against Disease.—JOHN T. CONNOR, President, Merck & Co., Inc., Rahway, N. J.

Workmen's Compensation Laws; Charges, Obligations, and the Law.—SMITH PETTIGREW, Dallas, Medical Coordinator, Texas Employers Insurance Association.

Legal Aspects of Medical Practice; How to Avoid Malpractice.—PHILIP R. OVERTON, Austin, General Counsel.

Strategy Is Everybody's Business.—FRANK ROCKWELL BARNETT, Director of Research, The Richardson Foundation, New York.

Evening Program, 6:00 p. m.

An Evening on Lake Austin. Hospitality hour aboard the Riverboat Commodore with a fish fry at Green Shores. Courtesy of Charles O. Finley and Company.

The Orientation Program is for provisional members of the Texas Medical Association, who may attend the program any time during a two year period. The next programs will be presented in January in Austin and in April in San Antonio during the annual session.

COMMITTEE ON RURAL HEALTH AND DOCTOR DISTRIBUTION

Chester U. Callan, Rotan, Chairman (1963).
R. Henry Harrison, Bryan (1963).
T. Charles McCormick, Jr., Buda (1962).
[8]John S. Primomo, Dilley (1962).
Roy E. Wilson, Seymour (1961).
William L. Wilson, Austin (1961).
Curtis Haley, St. Augustine (1960).
E. W. Schmidt, Pecos (1960).
George D. Bruce, Baytown (1959).
G. V. Pazdral, Somerville (1959).

[9]COMMITTEE ON LIAISON WITH STATE BAR OF TEXAS

Frederick C. Lowry, Austin (1962).
John J. Andujar, Fort Worth (1961).
Edward T. Driscoll, Midland (1960).
M. C. Carlisle, Waco (1959).

COMMITTEE ON ORIENTATION

Ex officio, Chairman, Board of Trustees; Chairman, Board of Councilors; Chairman, Council on Medical Economics; Chairman, Council on Medical Jurisprudence; Chairman, Committee on Public Relations.

Committee on Bracero Insurance and Medical Service.—J. G. Rodarte, Temple, Chairman; J. W. Matthews, Edinburg; G. A. Hoffman, Fort Stockton; J. L. Moet, LaFeria; H. E. Whigham, McAllen; V. L. Puig, Jr., Laredo.

Committee on Cardiovascular Diseases.—George E. Clark, Jr., Austin, Chairman; George R. Herrmann, Galveston; Paul V. Ledbetter, Houston; Robert E. Leslie, El Campo; W. Frank McKinley, Jr., Marlin; J. F. McVeigh, Fort Worth; H. H. Latson, Amarillo; P. K. Smith, Wichita Falls; Fred D. Spencer, Jr., Brownwood.

Committee on General Arrangements for Annual Session.—A. Fletcher Clark, Jr., San Antonio, Chairman.

Committee on Maternal Mortality.—Stewart A. Fish, Dallas, Chairman; Garth L. Jarvis, Galveston; E. K. Blewett, Austin; Donald M. Gready, Houston; C. P. Hawkins, Fort Worth; W. H. Jondahl, Harlingen; R. E. Moon, San Angelo; William R. Knight, III, Houston; Carl F. Moore, Jr., Austin.

Committee on Memorial Services.—John H. Bohmfalk, San Antonio, Chairman; G. W. Waldron, Houston; Valin R. Woodward, Austin; Paul R. Stalnaker, Houston; Howard K. Crutcher, Sr., Dallas; Oscar N. Mayo, Brownwood; Julius McIver, Dallas; L. H. Reeves, Fort Worth.

Committee on Military and Veterans Affairs.—Milton V. Davis, Dallas, Chairman; James S. Reitman, Laredo; Joseph N. Bader, Edna; M. D. Thomas, El Paso; Jack F. McKemie, Corpus Christi; Bert E. Davis, Denton; Charles L. Liggett, Baytown; Norman L. West, Waxahachie; Dickson K. Boyd, Denton; W. H. Hamrick, Houston.

Committee on Nuclear and Atomic Medicine.—Herbert C. Allen, Jr., Houston, Chairman; Julian H. Acker, Wichita Falls; E. E. Anthony, Jr., Fort Worth; C. C. Shullenberger, Houston; J. Allen Chamberlin, Houston; Lloyd R. Hershberger, San Angelo; J. E. Miller, Dallas; J. R. Maxfield, Jr., Dallas.

Committee on Problems of the Aging.—Wendell D. Gingrich, Galveston, Chairman; Hugh P. Reveley, San Antonio; S. W. Thorn, Houston; Ernest W. Keil, Temple; E. V. Headlee, Odessa; Ben B. Hutchinson, Lubbock; Luther W. Ross, Kerrville; J. O. Armstrong, Dallas; L. C. Carter, Port Arthur.

Committee on Spas.—Neil D. Buie, Marlin, Chairman; John B. Barnett, Marlin; Waldo B. Lasater, Mineral Wells; W. K. Logsdon, Corsicana.

Committee on Voluntary Health Insurance and Health Care Costs (Subcommittee of the Council on Medical Economics).—Russell L. Deter, El Paso, Chairman; John H. Wootters, Houston; George M. Hilliard, Jacksonville; Roy T. Lester, Dallas; Gerald Ahern, Corpus Christi; Milton Spark, Waco; A. Rex Kirkley, Belton; Rider E. Stockdale, Jasper; H. D. Gilliam, McAllen; L. G. Cigarroa, Laredo.

Committee to Study Asian Influenza.—Frederick C. Lowry, Austin, Chairman; J. M. Coleman, Austin; B. F. Primer, Austin; John H. Bohmfalk, San Antonio; John B. Bryson, Belton.

Committee to Study Contract Medicine (Subcommittee of the Council on Medical Economics).—Sam R. Barnes, Trinity, Chairman; W. M. Wallis, Houston; Homer V. Hedges, Hico; Jack B. Lee, San Antonio; H. W. Kilpatrick, III, Baytown; E. Peter Garber, Galveston; Joe R. Gandy, Houston; Richard B. Johns, Abilene; Paul M. Wheelis, Brownwood; Joseph H. McAlister, Odessa.

Committee to Study Hospital-Staff Relationships.—J. Layton Cochran, San Antonio, Chairman; Everett C. Fox, Dallas; W. Shelton Barcus, Fort Worth; E. A. Rowley, Amarillo; Franklin W. Yeager, Corpus Christi.

State Committee for the American Medical Education Foundation.—D. J. Sibley, Fort Stockton, Chairman; A. L. Delaney, Liberty; S. W. Thorn, Houston; J. C. Terrell, Stephenville; Herbert A. Bailey, Dallas; S. D. Coleman, Navasota; James S. Bussell, Marlin.

Appointees to Hospital-Insurance-Physicians Joint Advisory Committee.—Harvey Renger, Hallettsville; C. D. Bussey, Dallas.

Appointees to the State Coordinating Council on Tuberculosis.—W. D. Anderson, San Angelo; Elliott Mendenhall, Dallas.

Advisers to Texas Chapters, Student American Medical Association.—Hiram P. Arnold, Houston, Baylor; George V. Launey, Jr., Dallas, Southwestern; E. Sinks McLarty, Galveston, University of Texas Medical Branch.

Appointee for Liaison with the Texas Farm and Ranch Safety Council.—T. Charles McCormick, Jr., Buda.

Appointee to Advisory Committee to the Texas State Board of Education.—J. J. Johns, Taylor.

Appointees to Advisory Committtee to Texas State Hospitals and Special Schools.—Elliott Mendenhall, Dallas (Tuberculosis); P. C. Talkington, Dallas (Mental Hospitals).

Appointees to Texas Board of Examiners for Ophthalmic Technicians.—Richard E. Leigh, Jr., Houston (1962); Milton J. Loring, Midland (1961); Mary Agnes Lancaster, Dallas (1960); Vernon A. Black, Wharton (1959).

[8]*Appointed July 28, 1958, to fill vacancy created by resignation of Dr. Dick Cason, Hillsboro, on July 4, 1958.*

[9]*Changed from special to standing committee at 1958 annual session.*

OFFICERS OF SCIENTIFIC SECTIONS

SECTION ON GENERAL PRACTICE

James H. Sammons, Highlands, Chairman.
Woodrow M. Avent, Waco, Secretary.

SECTION ON INTERNAL MEDICINE

Hugh Arnold, Houston, Chairman.
J. Wilson David, Corsicana, Secretary.

SECTION ON SURGERY

T. G. Blocker, Galveston, Chairman.
Ridings E. Lee, Dallas, Secretary.

SECTION ON OBSTETRICS AND GYNECOLOGY

W. H. Jondahl, Harlingen, Chairman.
Milton A. Davison, Marlin, Secretary.

SECTION ON EYE, EAR, NOSE, AND THROAT

Jack L. Turner, Odessa, Chairman.
Vance Terrell, Stephenville, Secretary.

SECTION ON RADIOLOGY

Francis E. O'Neill, San Antonio, Chairman.
C. W. Yates, Rosenberg, Secretary.

SECTION ON PUBLIC HEALTH

Fred K. Laurentz, Houston, Chairman.
W. V. Bradshaw, Fort Worth, Secretary.

SECTION ON PATHOLOGY

J. E. Williams, Abilene, Chairman.
A. O. Severance, San Antonio, Secretary.

SECTION ON PEDIATRICS

A. O. Manske, Waco, Chairman.
Harold H. Bevil, Beaumont, Secretary.

★ County Societies

County Society News

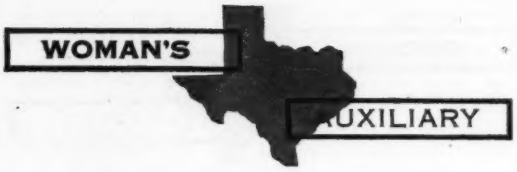
Tarrant County Society honored Dr. Porter Brown of Fort Worth with a dinner June 3, with members of the soicety and their ladies and special friends attending. Dr Brown 7 years ago gave to the society its Gold Headed Cane Award to honor other doctors with the stipulation that he could never receive it himself. The past recipients presented him with a silver tray inlaid with a replica of the gold headed cane. Dr. May Owen, Fort Worth, gave the award. Bryan Blalock of Marshall was the speaker.

A request to release *Delta County* from the Hunt County Medical Society jurisdiction was approved by the Board of Councilors of the Texas Medical Association at its April meeting. Delta County has been transferred to the Lamar County Medical Society to form the Lamar-Delta Counties Medical Society.

Mrs. Dorothy Myers has been named acting executive secretary of *Harris County Medical Society* following the resignation July 17 of John C. Lee as executive secretary.

County Society News Welcomed

County society secretaries are invited to send to the *Journal* information concerning the actions and program at the county society meetings, plus any other information of interest about the society.



Auxiliary Makes Plans For School of Instruction

"Seeing is believing!"

With this principle in mind, committee chairmen of the Woman's Auxiliary to the Texas Medical Association have been thinking and planning clever devices dramatizing the latest approach to their projects for Auxiliary leaders attending the School of Instruction in Austin, September 4.

Skits have been written, displays are constructed, and films have been previewed, reports Mrs. Harold Lindley, Pecos, chairman. Some of the presentations are keyed to the theme selected by Mrs. John D. Gleckler, Denison, President, "Guided Effort to Serve and to Survive."

The all day school will meet at the Texas Medical Association headquarters building, beginning at 9 a. m. with registration and coffee. Following the presentations of the committee chairmen, Auxiliary members from groups of related membership size will join in round table discussions. Mutual problems and suggestions for solutions will be outlined. Luncheon will be served at the building and an informal dinner will be held at 6:30 p. m. at the Westwood Country Club. Members of the Travis County Auxiliary will entertain following dinner.

The Executive Board will meet at the Association headquarters building on September 5 at 9 a. m. Mrs. Gleckler plans to have the School of Instruction and Executive Board meeting immediately preceding the Association's Conference on Public Relations, September 6. In the past these functions have been meeting on separate occasions and this necessitated two trips to Austin by Auxiliary members attending these important functions. By having the meetings in the same week it is Mrs. Gleckler's hope that Association and Auxiliary members will share the program, fellowship, and entertainment planned for them.

Auxiliary members remaining for the conference have been invited to a tea by Mrs. Gleckler, September 5 at 3 p. m. at the Headliners Club in the Driskill Hotel.

Sharing experiences, learning new methods, meeting new friends, and participating in an atmosphere of enthusiasm for the Auxiliary and the Association guarantee a profitable and pleasant excursion for those planning to be in Austin September 4-6.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1958-1959: President, Mrs. John D. Gleckler, Denison; President-Elect, Mrs. Haskell D. Hatfield, El Paso; First Vice-President, Mrs. William D. Nicholson, Freeport; Second Vice-President, Mrs. G. G. Passmore, San Antonio; Third Vice-President, Mrs. Ralph B. Payne, Amarillo; Fourth Vice-President, Mrs. G. V. Brindley, Jr., Temple; Fifth Vice-President, Mrs. George M. Hilliard, Jacksonville; Treasurer, Mrs. Andrew J. Magliolo, Dickinson; Recording Secretary, Mrs. Thomas J. Vanzant, Houston; Corresponding Secretary, Mrs. Rene G. Gerard, Denison; Publicity Secretary, Mrs. James M. Coleman, Austin; Parliamentarian, Mrs. Truman C. Terrell, Fort Worth; Executive Secretary, Miss Hazel Casler, Austin.

RECENT DEATHS

DR. R. H. FERGUSON

Dr. Rutherford Hayes Ferguson, Victoria radiologist, died May 1, 1958, of myocardial failure.

He was born December 9, 1875, at Harrison City, Pa., and received his early education at Harrison City public schools. He received his academic education from the Slippery Rock State Normal School at Slippery Rock, Pa., and the University of Pittsburgh. He was graduated from the Medico-Chirurgical College of Philadelphia in 1906 and served his internship at Greensburg Hospital at Greensburg, Pa., the following year. He did postgraduate work at Jefferson Medical College of Philadelphia and at the Memorial Center for Cancer and Allied Diseases at New York. Before

DR. R. H. FERGUSON

moving to Victoria in 1950, Dr. Ferguson was in general practice at Herminie, Pa., for 13 years and at West Newton, Pa., for 2 years. He practiced at Pittsburgh for 28 years, specializing in radiology. He also had been radiologist for Western Pennsylvania Hospital and South Side Hospital, both in Pittsburgh, and for the Physicians and Surgeons Hospital in San Antonio.

Dr. Ferguson held membership in the Victoria-Calhoun-Goliad Counties Medical Society and honorary membership in the Texas Medical Association. He was an associate member of the Allegheny County (Pennsylvania) Medical Society and of the Medical Society of the State of Pennsylvania.

Survivors include his wife, the former Miss Ellen S. Schmid, whom he married in 1951; two sons, Vernon H. Ferguson and Dr. Donald D. Ferguson, both of Pittsburgh; two stepchildren, Mrs. Walter H. Heer, Jr. of South Plainfield, N. J., and E. R. Brown of Corpus Christi; and six grandchildren.

DR. FRANK M. WAGNER

Dr. Frank Martin Wagner, Shiner, died April 24, 1958, of a massive coronary occlusion.

The son of John and Mary (Zapalac) Wagner, he was born January 17, 1894, at Shiner. He attended schools at Shiner and did undergraduate work at the University of Texas and at St. Edward's University, both at Austin. He was graduated from the University of Texas Medical Branch at Galveston in 1918 and served his internship at the Robert B. Green Hospital in San Antonio. He did postgraduate work in surgical operative technique in Chicago in 1922 and became a fellow of the American College of Surgeons in 1938. He was a veteran of World War I. He had practiced at Shiner since 1919.

DR. FRANK M. WAGNER

Dr. Wagner was president of the Lavaca County Medical Society for three terms and was a director from District 8 for the Postgraduate Medical Assembly of South Texas. He held membership in the Texas Medical Association, American Medical Association, Southern Medical Association, Southwestern Surgical Congress, Association of American Physicians and Surgeons, and Catholic Physician's Guild. He was city health officer at Shiner for more than 30 years and for the past 34 years had been supreme medical examiner for the Czech Catholic Insurance Union of Texas (K.J.T.), a post he still held at the time of his death. In 1924 he established the Dr. Wagner's Hospital at Shiner. He was also co-owner of the Shiner Clinic.

Dr. Wagner belonged to the Roman Catholic Church, the Shiner Rotary Club, and the Knights of Columbus, being a member of the fourth degree assembly at Shiner. In 1955 he received the St. George Award for Scouting Service and in 1958 was elevated to knighthood in the Order of St. Gregory the Great by Pope Pius XII.

Survivors include his wife, the former Miss Marie Elizabeth Kasper, whom he married at Shiner May 15, 1922; three sons, Dr. Robert J. Wagner of Shiner, Dr. John Dennis Wagner, now interning at Brackenridge Hospital at Austin, and Patrick J. Wagner, a sophomore medical student at Galveston; and a daughter, Mrs. F. R. Montalbano of Houston.

DR. JAMES O. WYATT

Dr. James Odis Wyatt, who operated the Wyatt Memorial Medical Clinic at Amarillo, died June 3, 1958, of a coronary condition.

Born November 30, 1906, at Victoria, Dr. Wyatt received his preliminary education at Temple and Dunbar School at San Angelo. He was graduated from Samuel Huston College at Austin, where he was a student instructor of chemistry and physics, and from Mehary Medical College at Nashville, Tenn., in 1931. He served his internship at Kansas City General Hospital No. 2 at Kansas City, Mo., and was an instructor of surgery at the Kansas City General Hospital No. 2 Nursing School. Before going to Amarillo in 1939, Dr. Wyatt practiced at San Angelo for 5 years and at Kerrville for 2. He did postgraduate work at the University of Southern California at Los Angeles and at Cook County Graduate School at Chicago.

A member of the Potter County Medical Society, he also held membership in the Texas Medical Association, the American Medical Association, and the American Association of Railway Surgeons. Dr. Wyatt served on the committee on hospitals for the Lone Star State Medical Association and was area vice-president for the National Medical Association. He was listed in "Who's Who in Colored America" and was a member of the Methodist Church. A past director of the Amarillo Community Chest, he was director of the Amarillo Negro Chamber of Commerce and a member of the Lobo Club and the Negro Elks Lodge. He was chief commander of the John W. McKinney Consistory and belonged to the Masonic Lodge, the Knights of Pythias, and the Phi Beta Sigma fraternity. Dr. Wyatt was an unsuccessful candidate for election to the board of trustees of the Amarillo Independent School District in 1955, being the first Negro ever to seek elective office in Amarillo.

Dr. Wyatt was married to the former Miss LaVernia Lott on June 11, 1936, in Brownwood. She died several years ago.

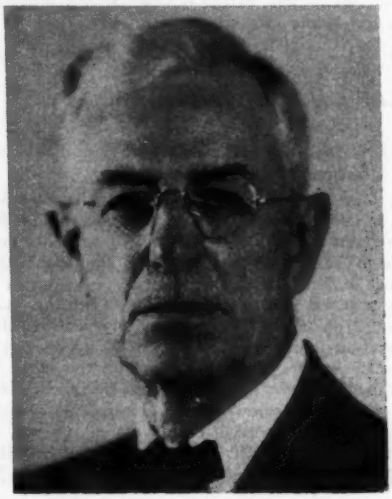
Surviving are two sons and two daughters, James Odis, Jr., who is attending school in Georgia; Rose Marie, a student in the University of Southern California, Los Angeles; Thelma LaVerne, attending grade school in Sedalia, N. C.; and Morris, Amarillo.

DR. JOHN R. de STEIGUER

Dr. John R. de Steiguer, city health officer at San Marcos for 42 years and secretary of his county medical society for 20, died May 8, 1958.

The son of Dr. Edward and Julia (Bryan) de Steiguer, he was born August 2, 1869, at Woods, Panola County. He attended schools in Panola County and Coronal Institute at San Marcos. After serving a preceptorship under his father, he was graduated from the Hospital College of Medicine at Louisville, Ky., in 1890. He started practicing at San Marcos in 1890 but soon after moved to Alum Creek, where he stayed 4 years. In 1894 he returned to San Marcos and continued his practice there until 1952, when he went on partial retirement. He was appointed city health officer of San Marcos in 1909 and held that position until 1951. He was a veteran of World War I, holding the rank of first lieutenant. He was also examiner for the Veterans Bureau at this time. Following his discharge from active military service, he held the rank of captain in the Army Reserve until the beginning of World War II. Dr. de Steiguer also served as physician for Southwest Texas State Teachers College at San Marcos.

A past president of the Hays County Medical Society, Dr. de Steiguer was also secretary for that society from 1934 through 1953. He was a past president of District 7 Medical Society and in 1950 became an honorary member of the Texas Medical Association. He also belonged to the American Medical Association. He was a past director of the Hays County Tuberculosis Association and was active in civic and church work in San Marcos.



DR. JOHN R. de STEIGUER

Dr. de Steiguer married the former Miss Nannie Casandra Talbot November 26, 1891. She died in 1920. On December 5, 1942, he married the former Mrs. Nettie Lindsay. She survives as do two daughters, Mrs. A. X. Boddeker of Seabrook and Mrs. E. B. Reynolds of College Station; one brother, E. de Steiguer of Ballinger; and two sisters, Mrs. Julia Gant of San Marcos and Mrs. Versula Ferguson of San Antonio.

DR. WALLACE B. SMITH

Dr. Wallace Benjamin Smith, Fort Worth, died May 14 of a cerebral hemorrhage.

A native of Gatesville, Dr. Smith was born August 3, 1888, the son of Mr. and Mrs. William Brite Berry Smith. His early education was received in the Fort Worth public schools. A graduate of the Medical Department, Fort Worth University in 1910, he did postgraduate work at Baylor University College of Medicine, Dallas, in 1932. He served his internship and residency at City-County Hospital in Fort Worth. Dr. Smith practiced at Fort Worth until his death. He was assistant city physician from 1910 to 1912. In 1918 he was a first lieutenant in the Army Reserves. He was appointed to the Selective Service board in Fort Worth in 1948 and was also in the Volunteer Medical Service Corps.

Dr. Smith held membership in the American Medical Association, the Texas Medical Association, and the Tarrant County Medical Society. He also belonged to the American

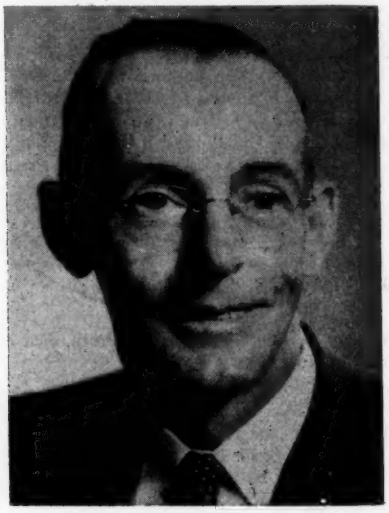
Academy of General Practice, Phi Chi fraternity, the Bethel Temple Church, the Chamber of Commerce, the Lions Club, and the Northside Steers Club.

Dr. Smith and Miss Georgia Lee Olson were married June 1, 1925, at Dallas. She survives as do three children, Mrs. Gordon Lowel Wilson of San Antonio, Mrs. Monte Floyd Hancock of Mesquite, and Wallace B. Smith, Jr., of Fort Worth. Other survivors include four sisters, Mrs. Lillian Benson and Mrs. Allen Berry, both of Arkansas; Mrs. Berd Stigal of Dallas; and Mrs. Vera McNabb of New York; one brother, William Smith of Oklahoma; and four grandchildren, Bubba and Brent Wilson of San Antonio and Angela and Monte Hancock of Mesquite.

DR. EARL W. CLAWATER, SR.

Dr. Earl William Clawater, Sr., Tyler, died May 27, 1958, of carcinoma of the esophagus.

Born May 15, 1892, at Superior, Wis., he was the son of Mr. and Mrs. L. N. Clawater. Receiving his premedical training at the University of Wisconsin from 1909 to 1911, he came to Texas soon after and was graduated from the University of Texas Medical Branch at Galveston in 1915. Dr. Clawater was an intern at St. Mary's Infirmary at Galveston and at the Philadelphia General Hospital. He also did intern work at John Sealy Hospital at Galveston, later doing postgraduate work as well as serving on the staff of this same hospital. He was an instructor in surgery at the University of Texas Medical Branch. In general practice at Tyler since 1917, he specialized in urology and was associated with his son, Dr. W. E. Clawater, Jr., at the Clawater Clinic, following the end of World War II. During World



DR. EARL W. CLAWATER, SR.

War I, he served as first lieutenant in the Army Medical Corps. He was physician for the Tyler High School football team for 12 years.

A member and past president of the Smith County Medical Society, he was also a member of the Texas Medical Association, American Medical Association, Tri-State Urological Society, Tyler Clinical Society, and Phi Rho Sigma medical fraternity.

Dr. Clawater was a member of the Christ Episcopal Church, serving as vestryman and senior warden. He recently had been nominated as vestryman for life in the Tyler church. He was a Shriner and a thirty-second degree Mason, with membership in St. John's Lodge. He also belonged to the Willow Brook Country Club and had ranch and oil interests near Lubbock. He was one of the original directors of the Tyler Bank and Trust Company and a director of the East Texas Savings and Loan Association.

Members of the family who survive are his wife, the former Miss Emily Morgan; a son, Dr. E. W. Clawater, Jr., of Tyler; and three grandchildren.

DR. JOHN A. KNIGHT

Dr. John Augusta Knight, a past president of the Hardin-Tyler Counties Medical Society and recently of Beaumont, died April 21, 1958, at Columbus, Ga., of a hypertensive heart disease.

Born at Almadane, La., on June 30, 1881, Dr. Knight was the son of James and Mary Knight. He was educated in the public schools of DeRidder, La., attended Sewanee Military Academy at Sewanee, Tenn., and was graduated

DR. JOHN A. KNIGHT

from the University of Tennessee Medical School at Memphis in 1904. Serving as a lumber company physician, he practiced at Merryville, La., from 1905 until 1935, when he moved to Bessmay. After practicing at Bessmay for 4 years, Dr. Knight practiced at Voth and then at Beaumont. He stayed in Beaumont from 1944 until 1956. He then moved to Lafayette, La., and from there to Columbus, Ga.

Dr. Knight held membership in the Jefferson County Medical Society, the Texas Medical Association, and the American Medical Association. He was elected to inactive membership in the Texas Medical Association in 1957. He was also a member of the Baptist Church.

On June 2, 1903, he married the former Miss Susie Welborn. She survives as do three children, Dr. Max J. Knight of Port Arthur, Leo Knight of Lafayette, La., and Mrs. Cecil Floyd of Columbus, Ga.